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LIVE OAK TIMBER FOR THE NAVY.

THE preservation of Live Oak Timber for Naval purposes, attracted the serious attention of Congress and the Executive, during the Administration of President MONROE; when it was discovered that unless efficient measures were adopted to prevent the abstraction of this most valuable production of our soil by foreigners, or on private speculation, the supply would be so far lessened as to be insufficient for our purposes.

Agents were sent out to examine the tracts of land, on which Live Oak grew, and much of that contiguous to navigation was reserved from public sale. After the appropriations for the Gradual Increase of the Navy were exhausted, Congress, with a very commendable liberality, appropriated $500,000 annually, for five years, for the Gradual *Improvement* of the Navy; meaning thereby to secure a supply of imperishable articles for future use. This appropriation has recently been renewed for a further term of six years.

By a resolution of the House of Representatives, passed 25th February 1832, the Secretary of the Navy was called upon for information relative to Naval Timber, and in December last submitted a report in compliance therewith.

Conceiving it a subject of great importance to the Navy, the occupation of the pages of the Magazine with a portion of the report will not, we hope, be considered amiss. The present number contains about one half—the remainder will be inserted in the next. The tabular statements accompa-

nying it are too voluminous for insertion; and as they are not considered absolutely necessary to a proper understanding of the subject, they are consequently omitted, as are the references to them.

NAVY DEPARTMENT,
December 14, 1832.

SIR: I have the honor to submit this communication, in compliance with the last clause of a resolution of the House of Representatives, passed February 25th, A. D. 1832, on the subject of live oak.

That clause requested the Secretary of the Navy to report to the House, "at an early period of the next session of Congress, such further information on this subject as he may be furnished with by the agents, or others, who may be employed in the service, with his views of the best means of preserving the naval timber growing on the public lands; or, if he deem it necessary, that he lay before the House a plan or system which he may think best calculated to secure to the nation an adequate supply of this material, either by cultivation or the purchase of lands now containing such supply."

As the preceding clauses in this resolution related to no other timber than live oak, and as the examinations of the agents have been directed chiefly to that material, I presumed that such timber only was in this case intended to be embraced under the expression of "navy timber," and have accordingly confined my remarks to the subject of live oak.

In respect to the "further information," which has been furnished by the agents, concerning that kind of timber, since the passage of the resolution, and which information is first called for, I would observe, that frequent and extensive additions have been made to what was before procured; but, from the circumstances under which the agents necessarily obtain new information, it has been forwarded in very detached portions. Merely laying copies of their several communications before Congress, would exhibit a mass of undigested matter, which would not readily afford any definite conclusions.

It has, therefore, been deemed proper to extract the material facts contained in all the correspondence of the agents under the present system, and to arrange them in as clear a manner as the general, and, in some degree, uncertain nature of the examinations and estimates would permit. The result of the whole is submitted in the tabular statement.

This statement shows, nearly as practicable, the present number of trees growing on what are supposed to be public lands in each of the seven districts between the St. Marys and the Sabine rivers, so far as each has been explored by these agents.

It also gives the estimated number of cubic feet in those trees suitable for the frames of ships of the line, frigates, sloops and schooners. It indicates the parts of each district in which the trees grow, their distance from navigable water, and whether the lands on which they grow have yet been surveyed, or reserved, or recommended to be reserved, when hereafter surveyed.

Another statement has been prepared, in a similar manner, relative to the live oak trees incidentally noticed and reported by these agents, as growing within their districts on private lands. But as the examinations of such trees were not officially required of them, except where very numerous and valuable, this statement is doubtless more imperfect and more below the whole quantity of trees growing on private lands within their districts, than is the first mentioned statement of trees growing on the public lands.

To meet the views of the select committee on the subject of live oak, appointed at the last session of Congress, the localities of most of the trees described in both these statements, have been marked by the draftsman of the Department, upon the map. On the accuracy of the statements it may be proper to remark, what must be fully apparent to all acquainted with the difficulties of this subject, that the Department can only vouch for their correctness as careful compilations from the reports of the agents.

These agents, however intelligent and faithful, could not attain perfect certainty in their examinations, but are believed to have generally evinced capacity and accuracy in the discharge of the duties confided to them.

A few circumstances, which have occurred to me as likely to possess some bearing on the whole result of their proceedings, and therefore entitled to consideration in forming an opinion on them, I deem it my duty to suggest for the attention of Congress.

A portion of these trees, when cut, may be found decayed by age, or injured by wind-shakes, beyond the allowance made on these accounts in the reports of some of the agents. In this kind of timber, as decay generally commences at the heart, it is hardly possible to decide with correctness on the extent of such defects until the tree is felled. Another portion of these trees in the future settlement of titles to the lands in some of the districts, may be found to grow on soil not owned by the public, though the trees are reported, in the first tabular statement, as being on public lands. Those titles, especially in some parts of Florida, continue in much doubt, but less so, it is believed, on the sea coast, where the live oak is more abundant and valuable than in the interior. Only about one-seventeenth of the land included in the seven districts, is computed to belong, at this time, to private persons.

Some of these trees may be found so situated as to navigable water, that the value of their timber will not be sufficient to pay for its transportation. The specific gravity of live oak is from one-fifth to one-sixth greater than that of water, and the trees generally grow where the roads are so bad, and the soil so moist, that the transportation by land, for any considerable distance, of so heavy an article, and in such large pieces as are required for naval purposes, would be either impracticable or exceedingly expensive.

Part of these trees are so sparsely scattered, and in such detached situations, that the agents have not considered their worth sufficient to justify recommendations to reserve the lands on which they grow: others are on lands which have not yet been reserved, because not surveyed.

In fine, a portion of these trees, while standing, and before wanted for immediate use or deposite, must be considered as exposed to certain loss by depredations, gales, fires and natural decay.

On the other hand, before wanted, much young growth, not now included in the reports of the agents, will have increased in size so as to become valuable; and, without doubt, some other trees will be discovered in the explored districts, which have now escaped research; and many more trees will be found in those portions of two of the districts which have not yet been even partially explored.

It is to be recollected also, that the scattered trees, not in sufficient quantities on the public lands to justify their reservation, and those trees on lands now supposed to be public, but which may hereafter prove to belong to individuals, although they must all hereafter be deducted from the first tabular statement, will still constitute additions to the second statement; and, with most of the trees in it, will probably contribute as useful resources, either in private hands, to supply, by contract, the more early wants of the navy, or, in a few instances, to be purchased and reserved by the Government, with the soil on which they grow, wherever and whenever their great number to the acre, and the urgent necessities of the public service, may be thought to render such a course judicious.

Without any additions or deductions on account of these circumstances, the amount of which additions and deductions it would not be possible to fix with great certainty, but which every person can estimate for himself, it will be seen that the whole number of live oak trees suitable for ship building, which the agents under the present system have yet examined and reported as now growing on the public lands, is about 144,655.

These, at twenty cubic feet per tree on an average, which is the estimate adopted by some persons, would furnish 2,893,

100 cubic feet of timber. Others, of much experience, calculate that such trees "of the ordinary size," would each, on an average, yield at least eighty cubic feet. [Rep. 102, Ho. of Rep. 21st Cong. 2d ses. 78 page.]

This would increase the whole quantity to 11,572,400 cubic feet. About fifty feet, the mean between the two estimates above mentioned, will probably be found the most accurate; as the quantity to each oak timber tree, on an average, in England, is computed at forty-five feet, and the live oak, though it may not be generally of so great height as the British oak, yet from its longer horizontal limbs, it often yields more ship timber. At this rate of computation, there would be 7,232,750 cubic feet.

The proportion of this timber, as found growing and suitable for ship-building, which is large enough to construct ships of the line, is sometimes considered about one-half; and to construct frigates, about one-third; and to construct sloops and schooners, one-sixth.

But, reducing this proportion to one-fourth for ships of the line, one-fourth for frigates, and one-half for sloops and schooners, which must be within the truth, [Doc. 178, Ho. of Reps. page 26, March, 1832,] and computing 34,000 cubic feet as sufficient for the frame of a ship of the line, 23,000 for that of a frigate of the first class, 18,000 for one of the second class, 8,000 for that of a sloop, and 1,800 for that of a schooner, which are near the average quantities; and the whole first named number of feet on public lands would suffice for the frames of 173 vessels: one-fourth of these would be ships of the line, one-fourth frigates, and one-half sloops and schooners —the two last in equal proportions.

The whole second named number of feet on public lands would suffice for 693, and the medium number of feet for 433 similar vessels.

It will further be seen by the second tabular statement, that, pursuing the same course of calculation, the number of trees as yet reported by these agents, as now growing on private lands, being in all 8,975, their contents in ship timber would be on the three different estimates before mentioned, 179,500, or 718,000, or 448,750 cubic feet. This, if all of it should hereafter be obtained for the navy, would prove sufficient for 10 or 43, or 27 vessels, as one or the other of the above estimates should be adopted. Without any increase for other trees known to exist in Georgia and South Carolina on private lands, and, in portions of some of these districts, on both private and public lands not yet fully examined by these agents, the above results, I am aware, are much larger than what have been published as the opinions of some intelligent persons on the whole supposed quantities of live oak timber growing in

this country. But it is to be recollected, that those opinions were founded on observations and explorations much more limited and imperfect, and made in part at such remote periods, as to leave it greatly conjectural how little of the timber, once seen, still remained uncut and undestroyed. The present results, also, large as they are, might be expected to exceed the computations of any individual heretofore, as they embody all the detached and more careful examinations of many individuals. Giving the quantity now remaining, from actual inspection, and on the public lands, not from rumor or estimates made at a distance, except in a single case, which is particularized, they likewise have some superior claims to correctness.

2d. The second point embraced in the resolution, is a statement of my "views of the best means of preserving the navy timber growing on public lands."

On this subject, the legal remedies which now exist for depredations committed, are deemed sufficient, so far as respects punishment. But, for the detection and prevention of trespasses, I think it should be further provided by law, that the masters of all vessels which sail from Florida, Alabama, Mississippi, or Louisiana, laden with live oak, should furnish to the collector, before allowed a clearance, satisfactory evidence that the timber was cut on private lands; or, if on public lands, was cut with the permission of the proper officers. As an additional security against depredations, and particularly against injuries by fires, I would recommend that it be made the duty of all public officers in the above named States and Territories, connected with the customs and the land offices, to keep a vigilant eye on the security of our live oak, and to prosecute persons known to be guilty of gross neglect, or wanton wrong, to the damage of this species of public property. These provisions, added to the present laws, and coupled with the prompt reservation of the lands on which valuable growths of timber exist, as fast as the country is surveyed where they exist, will constitute, in my opinion, "the best means of preserving the navy timber growing on the public lands."

3d. The last section of the resolution requests the Secretary of the Navy, "if he deem it necessary, that he lay before the House a plan or system, which he may think best calculated to secure to the nation an adequate supply of this material, either by cultivation or purchase of lands now containing such supply."

The select committee on live oak, appointed the last session, made a similar request, and extended it to some other particulars bearing on this subject, and which request, so far as not then answered, I will endeavour to comply with in the

course of my remarks under this branch of the present inquiry. —The diversity of views, and the conflicting interests, known to be connected with any course which the Government might be advised to pursue hereafter on this portion of the resolution, will undoubtedly expose all opinions, recommending any particular course, to some severity of criticism, and might, in the present unfinished state of the examinations by our agents, have furnished me with a sufficient apology for not expressing, at this time, any decided sentiments on so controverted a topic. But believing that some of the difficulties hitherto existing, arose from defective information, which the recent examinations by the agents, far as completed, and the collection of certain material facts accessible to the Department, would tend to remove; and that it might be considered as avoiding responsibility and labor not to comply with the apparent wishes of the House of Representatives fully as practicable; I have not hesitated to present, under this head, so far as my exertions could extend, every fact and estimate that appeared pertinent to the inquiry, and likely to be useful in the future deliberations and legislation of Congress on this important portion of the resolution.

In only a few of the computations which may be offered, do I profess to have attained perfect accuracy; but, in all of them, there has been attempted the nearest approximation to it which the defective materials before me, and the uncertain nature of the subject, permitted. I entertain no doubt that those who are acquainted with the inherent difficulties attending this inquiry, and the contradictory opinions generally prevalent on this part of the subject, will exercise the liberality duly to appreciate my motives, and to make suitable allowances for any unintentional errors.

In order to decide judiciously on a proper "plan or system," in future, either for purchasing more lands, now covered with a valuable growth of live oak, or for cultivating artificially this kind of tree on any lands, and in any particular method, it will be necessary, first, to ascertain our probable demands, in future, for that species of timber, and, afterwards, our means of obtaining a sufficient supply of it to meet those demands, either from materials now on hand, or by contracts from private lands, or from the public domain in its present condition.

The frames of our public vessels are the only parts of them usually constructed of live oak timber, and the computations will therefore be confined to a supply for the frames.

Upon the hypothesis that our force in commission will, for some years, be continued at about its present size, and on the propriety of which hypothesis some remarks may hereafter be offered, it will be indispensable to provide annually a small quantity of live oak timber for ordinary repairs, and another

quantity, somewhat larger, to take the places of such vessels as may be lost by accident, wars, and great natural decay. I have turned my attention, first, to the quantities deemed indispensable, and have considered those for the objects just named as the only ones strictly indispensable: because the further quantity needed for the vessels which sound policy may require us to keep in ordinary, and on the stocks, or the quantity in live oak timber which the same policy may require us to place in depot, to aid in enabling us to increase, at any time, our force in commission, so as to meet any future emergencies of the country, is rather a matter of public expediency than of indispensable necessity. It will depend on arguments as to the proper size of our naval establishment, and the proper extent of our collection of naval materials to meet future contingencies, and about which opinions may somewhat differ, and which will soon be examined, rather than on an immediate, obvious, and indispensable want, about which little diversity of sentiment can prevail.

The first indispensable quantity, which is that for small annual repairs of the live oak frames of our vessels kept in commission, will probably not much exceed 1,700 feet per year, or about one per cent. on the whole quantity of these frames.

Though this amount may appear small, it will undoubtedly be found ample for the object, when we advert to the kind of repairs here specified; to the durability of the timber used in the frames to be repaired; to the unexposed parts of the vessel in which it is used; and to the favorable result of our experience on this subject, which will hereafter be detailed.

The next indispensable quantity, which is that wanted to take the place of what live oak in frames may be lost while in commission by great decay, by fire, shipwreck, and war, will probably not exceed 8,500 cubic feet per year. This last computation is founded on the estimate, that, in the ordinary course of events, it will become necessary from great decays, and from disasters, either virtually, by large repairs, or actually, by either rebuilding, or by the substitution of other vessels already built, to replace all our force of live oak vessels now in commission during the lapse of the next fifth of a century.

This force consists of four frigates, nine sloops, and seven schooners; all the frames of which, except of one schooner, are in part, or altogether, composed of live oak. At the rate of computation, before suggested as correct, those of live oak contain about 165,480 cubic feet, and 1-20th of that is 8,274 feet, or about five per cent. on the whole quantity at present in commission. This augmented to 8,500 feet, and the 1,700 estimated for small repairs, will together amount to over six per cent. on the frames actually in service, as the quantity here computed necessary to maintain them entire. Without at this

time offering any thing more on the basis of these calculations, but the general correctness of which will be illustrated in the course of this report, it may be seen that these two estimates will require to be provided for small repairs, and for replacing losses from all causes, in our live oak vessels in commission, about 10,200 cubic feet annually, or at the average rate per year of a quantity more than sufficient for one new sloop, or each two years about enough for a frigate of the first class, or each three years almost enough for a ship of the line.

In regard to the procurement of these indispensable supplies, the first quantity for annual repairs, considering the use for which it is wanted, must be obtained in detached pieces; and, as we now have on hand 75,000 feet of live oak purchased for repairs, and of which over 50,000 is intended for ordinary ones, it could for twenty or thirty years be furnished from that source, and afterwards, if necessary, from timber in depot.

The second quantity could mostly, and to great advantage, be obtained for many years, by substituting our vessels now in ordinary, whenever they are of the size wanted. The frames of such of them as were built of live oak, contain about 322,633 cubic feet, being an amount, nominally, sufficient to replace more than twice the loss of our whole force in commission. The frames of the Macedonian, Hudson, and Cyane, and two-thirds of that of the Guerriere, are excluded from this computation, as not being of live oak: and other large deductions should undoubtedly be made from the extent of this source of supply, in consequence of the advanced age of a number of the live oak vessels in ordinary, and the future decay to which they are all liable while remaining in ordinary.

Besides this source of supply to replace those in commission, we have vessels on the stocks which contain in their frames about 354,000 cubic feet, and constitute a sure and more durable resort when necessary, than those in ordinary.

These vessels, now on the stocks, are sheltered from injury by the weather; are not decayed by either wet or dry rot; are little exposed to future damage except by fire; and, until launched, bid fair to continue sound, at least in their frames, for some generations.

Again: beyond both of those resources to replace lost and decayed vessels now in commission, are the live oak frames in deposite at the different yards, and to which, in case of necessity, a resort might be had. These contain over 431,845 cubic feet of timber, or nearly thrice the quantity now in commission; and they will probably remain not essentially injured for centuries, if receiving proper attention, and if, in the mean time, they are not wanted for public purposes.

These general remarks and estimates are presented merely with a view to furnish some aid in forming a just opinion on

the true extent and character of our resources on hand in live oak timber, and on their sufficiency, if required, to meet, for a time, our indispensable wants of that kind of timber.

But it is by no means recommended to place entire reliance even for our indispensable wants, or any large portion of them, upon the resources just enumerated.

On the contrary, some further remarks and estimates will now be presented, with a design to throw additional light on the extent of our resources in live oak timber, whether growing or cut, and in various shapes now on hand, and whether growing on public or private lands, but yet suitable and available to meet all such demands for that kind of timber as may be required in this country, no less by a future sound policy on naval subjects than by our indispensable wants.

In this inquiry, it is desirable first to ascertain, near as may be, what has been the extent of all our former demands in the navy for live oak timber; and then to estimate, from that extent and other considerations, what those demands will probably be hereafter. It will next become proper to ascertain whence and how the supply for those former demands has been obtained; and then, from that result and other information bearing on the subject, to estimate whence and how the supply for our future demands is to be obtained.

All our purchases and use of live oak timber heretofore for annual repairs, all our purchases and use of the same kind of timber for the immediate building of vessels, and all our purchases and deposites still remaining for the future gradual improvement of our navy, cannot be ascertained with accuracy; but, probably, can be computed so nearly to the truth, as to furnish material aid in forming an opinion on the whole extent of all our demands, both hitherto and hereafter, for live oak timber.

It is gathered from our records and other sources, that our former purchases of live oak timber for all kinds of repairs of all vessels afloat, have probably been about 168,000 cubic feet.

The basis of this and most of my other material calculations will be given, in order that any errors may be detected, and, in the final result, all due corrections and allowances be made, not only on account of arithmetical mistakes, but diversities of opinion on any of the important data entering into the elements of those calculations.

Our purchases of live oak timber for all kinds of repairs during the last ten years, have been 75,000 feet: previous to that, our records on this subject are defective, and the amount is to be estimated. As the above 75,000 feet included 10,000 feet for the rebuilding of one live oak vessel, and 57,000 for the repair and rebuilding of other vessels not before constructed of live oak, and as similar occurrences are not known to

have happened before, I have computed the purchases during the previous ten years at only two-thirds as much, or 50,000 feet, and during the fifteen years still previous, when our vessels were fewer and newer, at the rate of only one-half as much as in the succeeding ten years, or 37,500 feet, making in all, with an addition of about four per cent. for errors, the above amount of 168,000 cubic feet. The portion of this whole quantity which has been actually used for small ordinary repairs of our live oak vessels is not readily to be ascertained, but it is a very important inquiry, with a view to estimating accurately as possible, what may be the extent of our annual demands hereafter for that species of repairs.

The amount we have actually used for that purpose has, according to my estimate, been only about 33,000 feet. The basis of this estimate is, that for all kinds of repairs during the last ten years to the frames of our vessels, it cannot be ascertained that we have used over 54,000 feet of live oak timber. Our record shows that 42,000 of that has been used in other repairs than small and ordinary ones, to the live oak frames of vessels, and, consequently, leave only 12,000 feet, or an average 1,200 per year, as the probable amount consumed in this last description of repairs. Computing these last, during the ten previous years, to have been equally large, as that time included a period of war, and during the first fifteen years of our more limited establishment, to have been at the rate of only half as large, and the result would be as above stated, but 33,000 feet actually used hitherto for the small repairs of the live oak frames of all our vessels.

The correctness of this result is strengthened by the circumstance that, of the whole amount of 168,000 feet purchased for repairs, we are able to ascertain that about 57,000 have been used, and are now using, to repair and rebuild frames, before constructed of other than live oak timber; and about 20,000 have been used to repair largely, and to rebuild vessels before constructed of live oak. We have now on hand, for the purpose of ordinary repairs, about 50,000, and these three items, with the 33,000 feet before estimated as used for small repairs, would absorb the whole purchases except 8,000 feet. It is known, that some of this 8,000 feet has been used in the ordnance service during the late war, and that some has been occasionally diverted to still other public purposes, and all of which, with the casualties of over a fourth of a century, would probably equal the whole balance.

Though this estimate makes the actual use of timber for the small repairs of our live oak vessels during the last thirty-five years, to have been, on an average, less than 1,000 feet annually, and during the last ten years, only 1,200 feet annually, yet our future demand for that purpose must be computed much

higher. A number of the live oak vessels afloat are very old; most of them have been launched over ten years. The whole repairs in them must become larger, and a plain line between "small" and "middling" repairs in such vessels, cannot always be drawn with much accuracy.

Under these circumstances, coupled with a due allowance for errors in our result as to the past, I think that 3,400 feet annually will be a proper and a liberal estimate for our future demands for live oak for the purpose of small ordinary repairs. This is an aggregate of about one per cent. on our force in commission, and of about one-half of one per cent. on that in ordinary; or, on an average, nearly three-fourths of one per cent. on the whole force afloat. Our Navy Board consider two per cent. on what is afloat as a fair estimate of this species of timber annually wanted for all kinds of repairs.

Deeming this to be correct, the portion of it I have computed to be chargeable to small ordinary repairs hereafter, is much greater than my estimate before made is of our actual past use for this kind of repairs out of the whole.

As further evidence that I have thus computed enough for this kind of repairs, it will be observed, that the proportion for small repairs out of the whole, would, in fact, be somewhat greater for the past than the future, as the large repairs in the frames of our live oak vessels heretofore, have, in only one case, been known to exceed fifty per cent. on their original cost, while as our vessels grow older, the larger repairs must be more frequent, and constitute a larger proportion of the whole.

Much light cannot be thrown on this subject by the yearly appropriations for all our repairs as compared with the computed original cost of our vessels. Those appropriations have been for some years over eight per cent. on that cost. But this has included not only repairs of the vessels, but of their equipments, and of other parts of less durable timber, as well as of the frames, and large as well as small repairs, and the labor in making all these repairs. In fact, it presents not far from the amount in money deemed necessary not merely to repair the frames, but to maintain entire the materials of every kind in our whole force afloat. It happens also that very little pertinent information on this point can be derived from foreign services. The French estimate that their vessels will require to be slightly repaired in four years, thoroughly in eight, and virtually, if not nominally, rebuilt in eleven years.

The British estimate that "small" repairs will be necessary in five or six years, and "very small" sooner. Though they divide repairs into various grades and titles, from "very small," at one-eighth of the original cost, and "small," at one-fifth, up to "large," at nine-tenths, and "very large," at first cost, yet I have not found the average time for each kind esti-

mated, except the whole average duration of their vessels is now computed at about 13 years. Sometimes all their repairs are estimated at one-seventy-second per year of the quantity of timber afloat, or equal to one-fourth of what is deemed necessary to keep up annually their establishment entire.

But, as might be expected, considering the inferior durability of fir and of all other oak to live oak, and the less proportion of repairs required on frames than other parts of a vessel, all these expenditures are in a ratio nearly one-half larger than our estimate for future small repairs on only our live oak frames, and, making a due allowance for every circumstance, rather confirm than impair the results which I have before stated.

Assuming, then, for the present, what will hereafter be further examined, that our force now afloat will not, for some years, be essentially diminished or enlarged, the quantity of 3,400 feet of live oak annually, will, it is probable, prove sufficient for the small ordinary repairs of all our live oak frames afloat, and will, therefore, constitute the first item in our permanent yearly demands for this kind of timber, to be in some way, and from some quarter, hereafter supplied.

Our annual purchases, and actual use of live oak timber for building, independent of common wear and tear, form the next subject of inquiry. It is well known that these purchases have heretofore been very irregular. But all this timber which has been used in the frames of public vessels constructed since A. D. 1797, whether originally purchased for that or other purposes, has been about 974,363 cubic feet. This is on an average about 27,838 feet per year. What may be the extent of our annual demands on this account in future, will depend, in some measure, on fluctuations in policy as to the whole size of our naval establishment, on the amount of force deemed proper to be kept in commission, on misfortunes in war and by shipwreck, on the future decay of our vessels already built, and much on the circumstance whether the quantity of live oak required in consequence of these causes, shall, for many years, be supplied entirely or partially by rebuilding anew, and by purchases for that object, or entirely by substituting other vessels now in ordinary and on the stocks, and by taking frames already in depot.

But should this quantity be supplied hereafter in such manner as not to diminish the sum total of our present force of live oak in commission, in ordinary, and on the stocks, though we might advantageously, as new vessels are wanted in commission, supply our necessities from those in ordinary, when of the size wanted, and proportionably increase the number of those on the stocks, since vessels in the latter state are preserved with less injury than in the former; and should it be made in such manner as not to diminish our frames in depot,

but allow their annual increase in the mode lately practised, and now, as well as heretofore, earnestly recommended, we shall then pursue that manner in furnishing the quantity needed which seems to me least exceptionable and most consonant to the only correct general policy on the subject of our navy. In that event, there would probably be required about one-twentieth of the present quantity of live oak in commission, or 8,274 feet, and one-thirtieth of that in ordinary, or 10,754 feet, to supply the average annual losses by large and entire decay in the frames of vessels of those two descriptions. To this may be added, in order to meet every probable and almost possible contingency, about one-half of one per cent. for losses by shipwreck on those in commission, amounting to about 827 feet, and about one-third of one per cent. more for losses by accidental fire on all in commission, in ordinary, on the stocks, and on all timber in depot under sheds. This last one-third of one per cent. will be about 4,246 feet. These estimates for shipwreck and fire exceed any thing which our experience, as hereafter detailed, would justify; but are adopted to meet any plausible, though large computation for the future. These all would constitute, under this head, about 24,101 feet per year as a second item in our annual permanent demands to be supplied. This quantity, it will be seen, is about one-twentieth, or 5 per cent. of the whole frames afloat. If the amount for small repairs be added to it, making together 27,101 feet, it would be almost 5 3-4 per cent. or over one-eighteenth of the whole afloat. This is deemed requisite to keep up, in all respects, the live oak frames of the entire establishment in commission and ordinary. In England it is estimated by some that one-eighteenth is necessary for that purpose, including all parts, instead of only the frames of the vessel, and all those consisting of inferior kinds of timber. The Commissioners of our Navy Board estimate it at 6 per cent on the live oak frames, or about one-seventeenth of the whole afloat.

This would make a difference of only about 1,785 feet, and, to avoid mistakes, and to cover all deficiences, I shall assume that per cent. as correct in my future calculations, and thus increase the sum per year for large repairs and rebuilding to about 25,886 feet. To illustrate the basis of these computations a little more by details, it will be seen that the estimates under this head are founded on the supposed continuance, during some years, of our force afloat at its present size, as not being too large for all our legitimate wants.

So far from its present size being deemed too large for those wants, or at all adapted to the expensive scale of one, two, and three hundred vessels in commission, or to one, three, and five hundred vessels built and building, as practis-

ed by some of the great maritime powers of Europe, and so far from its looking to any extravagant project for either ostentation or future naval conquests, or the gratification of mere national pride, it differs but little from what was estimated as judicious in December, 1798, the very first year this Department went into operation.

The Secretary of the Navy at that time suggested that a proper permanent force at command should not be less than "12 ships of 74 guns, as many frigates, and 20 or 30 smaller vessels." In January, A. D. 1801, a similar estimate was presented, and, in December, 1811, a like opinion was expressed by the Department, except a recommendation to augment the number of frigates to 20, and leave the smaller vessels to be regulated by future convenience and exigencies.—The instructive lessons taught on this subject during the late war, and our experience during the last seventeen years, confirm the sound political wisdom of now maintaining an establishment at least equal to our present one. The more extensive range of our commerce, its new exposures in barbarous countries, the great increase of our seaboard by the purchase of Louisiana and Florida, and the convulsions that now agitate many parts of the civilized world, would seem to dictate a considerable increase rather than reduction, since the original estimates of the only species of force which can yield to our commercial interests abroad efficient protection, maintain there "the rights and independence" of the Union, "secure the personal liberty of our citizens," and be in readiness, on any emergency at home, to aid powerfully in the defence of our great coasting trade, and our very extended maritime frontier.

Presuming, then, that the expediency of continuing, for some years at least the present strength of our disposable force, has been satisfactorily shown, it is believed that the allowance before proposed for annual losses by accident and decay will, on a little inquiry and reflection, be deemed amply sufficient. Many of the vessels afloat, which have been launched within the last fifteen years, will probably endure more than one-fourth of a century longer, while some of them, built earlier, may perish sooner. Four of our present frigates, the Constitution, the United States, the Congress, and the Constellation, were all afloat before A. D. 1800, and three of them in 1797. Though they have since undergone frequent repairs, yet their original frames, except where destroyed by too large and frequent boring for treenails, or where constructed of timber not well seasoned, mostly remain sound. As the improved practice of bolting with copper and iron, and, consequently, of making smaller and fewer holes, shall prevail extensively, the first named source of injury to our ships of war

will diminish; and though from ten to fifteen years is the average estimated duration of an English oak vessel in commission, and only from six to ten years the duration of the vessels of many European powers when made of other oak or of fir, yet our experience, and the changes above mentioned, justify a belief, that from forty to fifty years, will in future be nearer the truth, in respect to the serviceable duration of the frames of vessels built of well seasoned live oak, and used from time to time as ours have been, alternately in commission and in ordinary, and, when in ordinary, protected as ours now are, with great skill and attention. Should our present excellent system of ventilating, covering and inspecting vessels, while in ordinary, continue, their frames, when of live oak, will probably last many years without being much impaired, and the allowance proper on account of their future decay will be somewhat less than that for vessels while in commission. Accordingly, we have estimated the average duration of those now in commission at about 20 years; and, as many of the vessels now in ordinary are comparatively new, as the frames of some others have not been injured by frequent boring and repairs, and all of them are so well protected from the weather, it might be safely calculated that the whole in ordinary, if put into use as needed, in the place of those in commission, would not, on an average, perish under thirty years.

The manner of building, as to care and closeness of finish, the dryness and good ventilation of the inside of the vessel after launched, as well as the thorough previous seasoning of the timber—all have a material influence on its durability, and have of late years, received particular attention in our service. To these remarks bearing on the correctness of the above allowances, it may be added that, during the last thirty-five years, since our present navy commenced, only a single live oak vessel in our service is known to have been chiefly lost by natural decay, and only two small ones by shipwreck. This has scarcely any thing like a parallel, unless in what is reported of the finely built vessels of teak, at Bombay. Some decays and injuries in most of the live oak frames of our vessels have, of course occurred from common wear and tear, and some from the other special causes previously enumerated.

But most of the repairs in our vessels hitherto have been in other portions of them than such as are made of live oak; little is justly chargeable to great decay in the live oak frames. Another series of facts resting on careful computations will lead us to a similar conclusion. Of the whole quantity of live oak put into the frames of public vessels in building them since 1797, being about 974,363 cubic feet, there now remain about 165,480 feet in commission, 322,633 feet in ordinary, and 354,000 feet on the stocks, leaving only 132,250 feet not now

on hand. Of this last quantity, 8,000 feet were sold by order of Congress, in A. D. 1801, 68,375 feet were captured and supposed to be destroyed by our enemies in four different wars: 44,500 feet were burned by ourselves in 1814: 3,375 feet have perished by shipwreck, and only about 8,000 feet by great natural decay, requiring rebuilding. This makes a loss of live oak vessels in 35 years, by the last cause, of nominally almost nothing, as the only vessel considered to have been thus lost is the original John Adams, which, having been imperfectly built by contract in a private yard, and with timber not known to be thoroughly seasoned, experienced a premature failure.—But, in reality, the loss by decay has been only the above amount of 8,000 feet; and what has been supplied as before suggested, in small quantities, in the ordinary annual repairs, and some more extensive injuries before referred to in the older vessels, arising from peculiar circumstances, and which injuries, for reasons before named, will not probably so often occur hereafter. Though the extent of all the repairs, which, technically, ought to be charged to rebuilding, cannot be exactly ascertained, I think that a liberal estimate has been presented for them, and for entire rebuilding from all kinds of losses in future, by computing it at 25,886 feet annually, or a little more than enough for one frigate of the first class every year. I have made no specific estimate for losses in future wars to be hereafter supplied, because it is hoped those losses will prove few and far between, and because, if greater than what we may acquire by captures, they could readily be replaced from frames in depot, the great safeguard and reliance in this respect in any national emergency.

LAWS OF THE UNITED STATES.

AN ACT making appropriations for the Naval Service for the year one thousand eight hundred and thirty-three.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be appropriated for the naval service for the year one thousand eight hundred and thirty-three, in addition to the unexpended balances of former appropriations for similar objects, viz:

For pay and subsistence of the officers of the navy and the pay of seamen, one million four hundred and forty-five thousand dollars.

For pay of superintendents, naval constructors, and all the civil establishments at the several yards, fifty-seven thousand three hundred and thirty dollars.

For provisions, four hundred and sixty thousand dollars.

Repairs for vessels in ordinary, and the repairs and wear and tear of vessels in commission, five hundred and six thousand seven hundred and fifty dollars.

For medicines and surgical instruments, hospital stores, and other expenses on account of the sick, thirty-five thousand dollars.

For improvements and necessary repairs of navy yards, viz:

For the navy yard at Portsmouth, twenty-one thousand five hundred and twenty-four dollars.

For the navy yard at Boston, seventy-three thousand five hundred and thirty-five dollars.

For the navy yard at New York, thirty-four thousand eight hundred and fifty dollars.

For the navy yard at Philadelphia, three thousand two hundred and seventy-five dollars.

For the navy yard at Washington, sixteen thousand dollars.

For the navy yard at Norfolk, one hundred and twenty-six thousand five hundred and twenty-nine dollars.

For the navy yard at Pensacola, fifty-three thousand one hundred and fifty dollars.

For ordnance, and ordnance stores, ten thousand dollars.

For defraying expenses; for freight and transportation of materials and stores of every description; for wharfage and dockage, storage and rent, travelling expenses of officers, and transportation of seamen, house rent, chamber money, and fuel and candles to officers, other than those attached to navy yards and stations, and for officers in sick quarters, where there is no hospital, and for funeral expenses; for commissions, clerk hire, and office rent, stationary, and fuel to navy agents; for premiums, and incidental expenses of recruiting; for apprehending deserters; for compensation to judge advocates; for per diem allowances for persons attending courts martial, and courts of inquiry, and for officers engaged in extra service beyond the limits of their stations; for printing and stationary of every description, and for books, maps, charts, and mathematical and nautical instruments, chronometers, models, and drawings; for purchase and repair of steam and fire engines, and for machinery; for purchase and maintenance of oxen and horses, and for carts, timber wheels, and workmen's tools of every description; for postage of letters on public service; for pilotage; for cabin furniture of vessels in commission, and for furniture of officers' houses at navy yards; for taxes on navy yards and public property; for assistance rendered to vessels in distress; for incidental labor at navy yards, not applicable to any other appropriation; for coal and other fuel for forges, foundries, and steam engines: for candles, oil and fuel; for vessels in commission and in ordinary; for repairs and building of magazines and powder houses, for preparing moulds for ships to be built, and for no other object or purpose whatsoever, two hundred and ninety-five thousand dollars.

For contingent expenses for objects not hereinbefore enumerated, five thousand dollars.

For pay of the officers and non-commissioned officers, musicians, and privates, and for subsistence of the officers of the marine corps, one hundred and twelve thousand nine hundred and ninety dollars.

For subsistence of non-commissioned officers, musicians, and privates, and washerwomen, serving on shore, eighteen thousand four hundred and thirty-nine dollars.

For clothing, twenty-eight thousand seven hundred and sixty-five dollars.

For fuel, nine thousand and ninety-eight dollars.

For contingent expenses, fourteen thousand dollars.

For military stores, two thousand dollars.

For medicines, hospital stores, and surgical instruments, two thousand three hundred and seventy dollars.

To enable the Secretary of the Treasury to discharge an outstanding claim for prize-money for the capture of the Algerine vessels in one thousand eight

hundred and fifteen, twenty-one dollars, being part of an unexpended ballance carried to the surplus fund.

For the payment of claims arising under the act of eleventh of July, one thousand eight hundred and thirty-two, entitled "An act concerning certain marine officers," eighteen thousand three hundred and thirty-seven dollars and twenty-eight cents.

Sec. 2. *And be it further enacted*, That, for the purpose of compensating the board authorized by the act of the nineteenth of May, one thousand eight hundred and thirty-two, for their services in revising and enlarging "the rules and regulations governing the naval service, with the view to adapt them to the present and future exigencies of this important arm of national defence," the sum of seven thousand dollars be, and the same is hereby, appropriated, out of any money in the Treasury not otherwise appropriated, to be paid by the Navy Department, according to the rates of allowances for detention on special service, now prescribed by the rules and regulations of the Navy Department.

Sec. 3. *And be it further enacted*, That the salary directed by "An act for the regulation of the navy and privateer pension, and navy hospital funds," passed July tenth, one thousand eight hundred and thirty-two, to be paid to the clerk of said funds out of the Treasury of the United States, shall be paid from any money in said Treasury not otherwise appropriated.

Sec. 4. *And be it further enacted*, That, for carrying into effect the acts for the suppression of the slave trade, including the support in the United States, and for a term not exceeding six months after their arrival in Africa, of all persons removed from the United States under the said acts, the sum of five thousand dollars be, and the same is hereby, appropriated, to be paid out of any money in the Treasury not otherwise appropriated.

Sec. 5. *And be it further enacted*, That there be paid to Master Commandant John D. Sloat, of the United States' Navy, out of any money in the Treasury not otherwise appropriated, the sum of one thousand three hundred and sixty dollars, being the amount of his account exhibited to the Navy Department for expenses incurred in entertaining, on board the St. Louis, under his command, Gen. Bolivar and several of his officers at Guayaquil, in the year one thousand eight hundred and twenty-nine; and General La Fuente, President of Peru, and Major General Miller, of the Peruvian Army, in the year one thousand eight hundred and thirty-one.

A. STEVENSON,
Speaker of the House of Representatives.
HU: L. WHITE,
President of the Senate, pro tempore.

APPROVED, February 20, 1833.

ANDREW JACKSON.

AN ACT making appropriations for the support of the Army for the year one thousand eight hundred and thirty-three.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and they are hereby, appropriated, out of any money in the Treasury not otherwise appropriated, for the support of the army for the year one thousand eight hundred and thirty-three, viz:

For pay of the army and subsistence of officers, one million three hundred and thirty-six thousand six hundred and ninety-seven dollars.

For forage of officers, fifty-four thousand three hundred and thirty dollars.

For clothing for servants of officers, twenty-four thousand dollars.

For subsistence, exclusive of that of officers, in addition to an unexpended balance of fifteen thousand dollars, three hundred and eighty-seven thousand dollars.

For clothing of the army, camp equipage, cooking utensils, and hospital furniture, in addition to material and clothing on hand, amounting to twen-

ty thousand dollars, two hundred and fifty-six thousand seven hundred and sixty-three dollars.

For medical and hospital department, thirty-one thousand dollars.

For arrearages in the same department during the year one thousand eight hundred and thirty-two, three thousand dollars.

For various expenses of the quartermasters' department, viz: for fuel, forage, straw, stationary, blanks, repairing officers' quarters, barracks, storehouses, and hospitals; for erecting temporary cantonments and gun houses, for rent of quarters, store houses, and lands; for postage of letters on public service; for expenses of courts martial, including compensation of judge advocates, members and witnesses; for extra pay to soldiers employed on extra labor, under the act of March second, one thousand eight hundred and nineteen; and for expenses of expresses, escorts to paymasters, and other contingencies to quartermasters' departments, two hundred and forty thousand dollars.

For transportation of officers' baggage, and allowance for travel in lieu of transportation, and for per diem allowance to officers on topographical duty, fifty-three thousand dollars.

For transportation of clothing, subsistence, ordnance, and of lead from the mines, and for transportation of the army and funds for pay of the army, including the several contingencies and items of expenditure at the several stations and garrisons usually estimated under the head of transportation of the army, one hundred and twelve thousand dollars.

For defraying the expenses of the board of visiters at West Point, two thousand dollars.

For fuel, forage, stationary, printing, transportation, and postage, for the military academy, eight thousand five hundred dollars.

For repairs, improvements, and expenses of buildings, grounds, roads, wharf, and boat, at West Point, four thousand dollars.

For pay of adjutant's and quartermaster's clerk, nine hundred dollars.

For increase and expenses of the library, fourteen hundred dollars.

For philosophical apparatus, eight hundred and ninety dollars.

For models of department of engineering, six hundred dollars.

For models for the drawing department, repairs of instruments for the mathematical department, apparatus and contingencies for the department of chemistry, nine hundred dollars.

Miscellaneous items and incidental expenses of the academy, one thousand five hundred and seventy-five dollars.

For contingencies of the army, ten thousand dollars.

For the national armories, three hundred and sixty thousand dollars.

For the armament of fortifications, one hundred thousand dollars.

For the current expenses of the ordnance service, sixty-nine thousand three hundred dollars.

For arsenals, ninety-six thousand five hundred dollars.

For the recruiting service, thirty thousand nine hundred and fifty-two dollars, in addition to an unexpended balance of twelve thousand dollars.

For the contingent expenses of the recruiting service, sixteen thousand and forty-four dollars, including an unexpended balance of eight thousand five hundred dollars on hand.

For the purchase of accoutrements and swords, sixteen thousand seven hundred and fifty dollars.

For the purchase of cannon, fourteen thousand seven hundred and fifty dollars.

For payment of arms for mounted rangers, two thousand five hundred and ninety-eight dollars.

For the purchase of arms for South Carolina, six thousand one hundred and thirty-one dollars.

For arrearages prior to the first day of July, one thousand eight hundred and fifteen, payable through the Third Auditor's Office, five thousand dollars.

To enable the Second Auditor to close the accounts, under the act of 3rd March, one thousand eight hundred and twenty-one, allowing three months' gratuitous pay to disbanded officers and soldiers, five hundred dollars.

For arrearages of pay of certain militia of the State of Missouri, called out in one thousand eight hundred and twenty-nine, one thousand two hundred dollars.

For the pay of the militia of Illinois, Indiana, Missouri, and Michigan, ordered into the service of the United States during the last year, six hundred and thirty-two thousand dollars, in addition to the amount heretofore appropriated for the same purposes.

For completing barracks, quarters, and store houses, at Fort Crawford, eight thousand dollars.

For completing barracks, quarters, and store houses, at Fort Howard, ten thousand dollars.

For completing barracks, and erecting an hospital at Baton Rouge, twenty-five thousand dollars.

For making good a deficiency of appropriation for the erection of barracks at Fort Severn, Annapolis, three hundred dollars.

For the construction of a wharf at Fort Preble, Portland, including the purchase of a site, three thousand seven hundred and seventy dollars.

For repairing the wharf at Fort Independence, Boston, one thousand five hundred dollars.

For repairing the wharf at Fort Washington, on the Potomac, one thousand five hundred dollars.

For repairing the wharf at Fort Moultrie, Charleston, one thousand five hundred dollars.

For the purchase of ground adjoining Fort Trumbull, New London, four hundred dollars.

For the erection of a store house and stable on the public lot at Pittsburgh, five thousand dollars.

For the purchase of the ground at Key West, on which the barracks and quarters are erected, three thousand two hundred dollars.

For the purchase of land at Fort Gratiot, one thousand six hundred dollars.

To make good a deficiency of a former appropriation for the building of a wharf at Fort McHenry, ninety dollars and forty cents.

For repairing and extending the levees securing the works at Fort Jackson, Mississippi, and for improving the store rooms and magazine, four thousand dollars.

Sec. 2. *And be it further enacted*, That the Secretary of War be authorized, at his discretion, out of the money appropriated by this or any former act, for the payment of the militia ordered into the service of the United States, according to law, during the year, to allow and pay to the district paymasters of the army of the United States employed in making such payments, a commission on the sums respectively paid by them, not exceeding one per centum upon the amounts.

APPROVED, March 2, 1833.

AN ACT making appropriations for the Engineer and Ordnance Departments.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and the same are hereby, appropriated, out of any money in the Treasury not otherwise appropriated, namely:

For collecting the materials, and making the preliminary arrangements, for the construction of a fort on George's Island, Boston harbor, Massachusetts, twenty-five thousand dollars.

For the erection of a building for military and other exercises, at the United States' Military Academy, West Point, six thousand dollars.

For the erection of a chapel at the United States' Military Academy, West Point, ten thousand dollars.

For the erection of two new dwelling houses at the National Armory at Springfield, Massachusetts, for the use of the Master Armorer and Paymaster, seven thousand dollars.

For building a pay-office and store at the same Armory, for the preservation of models and patterns, two thousand dollars.

For building a workshop for grinding and polishing, at the same Armory, six thousand dollars.

For enlarging and repairing the shop, for welding and boring musket barrels, at the same Armory, fifteen hundred dollars.

For additional machinery, at the same Armory, three thousand five hundred dollars.

For one steam engine of fifteen horse power, at the same Armory, fifteen hundred dollars.

For thirty-six double racks for placing arms in the new arsenal, at the same Armory, five thousand one hundred dollars.

For the erection of twelve additional dwelling houses for the workmen, at the National Armory at Harper's Ferry, Virginia, eight thousand six hundred dollars.

For the repair and extension of the public dam, on the Potomac river, from which the supply of water is obtained for the works of said Armory, five thousand dollars.

For the enlargement of the canal, supplying the water power of the public works of the said Armory, from the Potomac dam, thirteen thousand four hundred and ninety-five dollars.

For repairing the walls of four workshops, at the same Armory, fifteen hundred dollars.

For constructing three new water wheels, and the machinery in the boring, turning, and stocking shops, and sinking flumes, at the said Armory, eight thousand four hundred dollars.

For completing the forging shop tilt hammer, and new workshop, at the same Armory, thirteen thousand three hundred dollars.

For the purchase of one square acre of land, with the improvements, adjoining the Arsenal near Pittsburgh, Pennsylvania, three thousand five hundred dollars.

For the purchase of forty-five acres of land adjoining the Watervliet Arsenal, New York, nine thousand dollars.

For the purchase of the right to the water power on the Shenandoah river, for the use of the United States' rifle factory which is established on that river, four thousand six hundred dollars.

For the repairs of the Spanish fort Marion, at St. Augustine, and for reconstructing the sea wall, to prevent the encroachment of the sea, at and near the same, twenty thousand dollars.

For the purchase of a site, and for erecting quarters and barracks for the United States' troops at Savannah, Georgia, thirty-five thousand dollars.

Sec. 2. *And be it further enacted*, That the Secretary of War be, and he is hereby, authorized to apply to the purchase of the square acre of land above mentioned, a sum not exceeding three thousand five hundred dollars, out of the proceeds arising from the sales of certain lots of lands at Pittsburg, Pennsylvania, belonging to the United States, which may be disposed of, under the provisions of the Act of Congress of the second of August, one thousand eight hundred and thirteen.

APPROVED, March 2, 1833.

ORDER, No. 20.

HEAD QUARTERS OF THE ARMY,
ADJUTANT GENERAL'S OFFICE,
Washington, March 23d, 1833.

THE following General Regulation concerning the term of service and the pay of enlisted men of the Army, as established by acts of Congress, approved, March 2d, 1833, to increase the pay, and improve the condition of non-commissioned officers and private soldiers, is published to the Army, for general information, and the guidance of all whom it may concern :—

WAR DEPARTMENT,
March 23d, 1833.

I....THE term of service of enlisted men, is fixed by law at three years, and the premium heretofore allowed to officers, and the bounty to recruits for enlisting, are abolished, from and after the date at which the act of March 2d, 1833, may be received at the several military posts and recruiting stations. Recruits enlisted subsequently to the 2d of March for the period of five years, will be allowed to cancel such engagement—provided they consent to subscribe to a new enlistment for the term of three years, and refund the bounty received in conformity with the former law.

II....All non-commissioned officers of the army will receive the increased rate of pay from and after the 2d day of March, 1833 ; and all privates in the army enlisted for five years, who have "*served honestly and faithfully,*" two or more years of their term of service, are entitled to receive *full pay*, at the rate of six dollars per month, from the 2d day of March, 1833, to the end of their enlistment.

III....Every private soldier enlisted for the term of three years, who serves "*honestly and faithfully*" the two first years of his enlistment, shall receive the $24 00 *retained pay*, at the next ensuing regular payment of the company ; and during the third year of his term of enlistment, he will be entitled to *full pay*, at the rate of six dollars per month.

IV....Every able-bodied musician or private soldier who shall *re-enlist* into his former company or *Regiment*, within two months before, or one month after the expiration of any term of service, will be entitled to $12 00 *extra pay*, as a bounty, to be paid at the time he may so re-enlist, and to full pay, from and after the date of his re-enlistment ; he will also be entitled to receive the pay and other allowances which shall accrue on account of the unexpired portion of his old enlistment at the period of its termination.

V....In all cases of *re-enlistment* prior to an unexpired term of service, the date of the new enlistment shall be substituted for the date of the old enlistment, and accordingly, will be inserted in the muster rolls, at the first muster thereafter.

VI....To ensure justice to the soldier, and to enable paymasters to ascertain the proper time at which his *full pay* should commence, and be continued ; or, when entitled to receive the twenty-four dollars *retained pay* ; and in case of *re-enlistment*, the private or musician, who may be entitled to twelve dollars *extra pay*, it is made the special duty of Company commanders, to note on their muster rolls opposite the name of the soldier, the appropriate remarks, as the case may be, to wit.—"*Full pay*, due, from ——:" "$24 00 *retained pay*, due :"— "Re-enlisted, $12 00 *extra pay*, due :" — "Entitled to *full pay*, from date of re-enlistment, and also, for —— month and —— days, on account of prior enlistment, which expired on the —— day of —— 183 ."

VII....The following table exhibits the established rates of pay allowed to non-commissioned officers and other enlisted soldiers of the Army, as authorized by the law to increase their pay, and by the act to raise the Regiment of Dragoons, respectively approved, the 2d day of March, 1833:

Table of established rates of Pay—March, 1833.

GRADE.	Pay of Artillery and Infantry Soldiers; and of Dragoons when serving on foot.			Pay of Dragoon Soldiers when mounted.		
	Pay per month.	Pay per annum.	Pay for 3 years.	Pay per month.	Pay per annum.	Pay for 3 years.
	$	$	$	$	$	$
To the Sergeant Major, Quartermaster Sergeant, Chief Musician, and Chief Bugler—each,	16	192	576	16	192	576
To the First Sergeant of a Company,	15	180	540	15	180	540
Ordnance Sergeants,	17*	204	612			
All other Sergeants—each,	12	144	432	12	144	432
Corporals,	8	96	288	10	120	360
Buglers,	6	72	216	9	108	324
Musicians,	6	72	216			
Farriers and Blacksmiths,	10	120	360	10	120	360
Artificers,	10	120	360			
Privates,	6	72	216	8	96	288

VIII.....The public interest no longer justifies the practice of granting discharges to soldiers of the Army, before the expiration of their enlistment. The term of service being now limited to *three years*, it is required that every citizen of the United States who voluntarily enlists, will enter the Army with a view to honorable employment, and a fixed determination to serve out the full period of his engagement:—Accordingly, the granting of discharges to soldiers prior to the expiration of service, by way of indulgence,—and, application for such discharges, are hereafter *prohibited*. Recruiting officers are commanded to explain these points fully to the recruit, before he enlists, and they are charged to make him distinctly understand, that if he should join the Army, he must serve the *full term of his engagement*.

By order of Major General MACOMB:

R. JONES,
Adjutant General.

* Being five dollars, in addition to his pay in the line, as authorized by the act, *approved*, April 5th, 1832.

FOR THE MILITARY AND NAVAL MAGAZINE.

THE FIRST CAMPAIGN OF AN A. D. C.

The winter of 1812—13 resounded with the notes of warlike preparation. The inefficient and fruitless operations on the northern, and the disastrous and humiliating defeats on the northwestern, frontiers, had convinced Government that the next campaign must be commenced under new auspices, promising better success, or the country would sink under discouragement. A plan of operations was accordingly matured, which showed much skill and forecast, and seemed to require only a vigorous execution, in order to fulfil every hope which it inspired.

The line of frontiers on which the war was to be carried on, included lake Ontario and the river St. Lawrence; and the two hostile territories were separated, in those parts, by these two geographical features. The British posts, beginning with fort George, at the mouth of the Niagara river, and running thence around lake Ontario, were of course more extended than ours, which, starting from the same point, ran on a comparatively strait line, forming, as it were, the chord of an arc, of which the British frontiers was the curve. This relative position of the two lines obviously gave to the Americans many advantages, which our commander in chief had the sagacity to perceive, and which he determined to improve. Sacket's Harbor was made the initial point of operations. This place was a centre, whence movements could radiate, with nearly equal facility, to most of the enemy's posts, leaving him in a state of uncertainty as to the real object, until timely intercommunication became impracticable. Each post had therefore to rely on itself, all chances of co-operation being excluded. It was known that our fleet would have, in the outset of the campaign, the ascendancy on lake Ontario. This fleet was at Sacket's Harbor, and was to be the auxiliary of the army movements. The scope of the plan was, to concentrate at Sacket's Harbor, during the winter, or early in the spring, a force adequate to attack York, U. C. one of the weakest of the enemy's posts, masking the design under a rumor that Kingston was the object, and thus keeping the garrison at the latter place immovable. At the same time, another concentration was to be made near the mouth of the Niagara river. York being captured, and its defences razed, a rapid transit of the lake was to be made to fort Niagara, and, all preparations being ready, the combined troops, were to attack fort George, the post opposite. This work being carried and destroyed in like manner, the next object was to be Kingston; then Montreal; and then—perhaps—Quebec.

This was the outline of the plan, having every military and judicious characteristic, and due feasibility. The ascendancy of the fleet, and ample transport, assured the utmost freedom of movement on the lake; and the forces concentrated were fully adequate, under all reasonable calculations, to the objects in view. The enemy could not concentrate his garrisons; for all three of his posts were nearly or quite equally assailable, and he must be equally strong and on the alert in all. Even if the garrison of York should escape—as, in all probability, it would—its accession to Kingston would be but inconsiderable;—and should the same result occur at fort George, all ulterior objects of the plan would doubtless be accomplished, before the retreating garrison, having the circuit of the lake to make, could come within the reach of co-operation below. The attack on Kingston might not have promised the same happy success. Having the fleet in her harbor, perhaps then nearly ready for active operations, it might even have been deemed advisable to pass that post by, and, embarking in the smaller craft, of which there was an abundance at hand, descend at once on Montreal, the grand and ultimate object of the campaign. The river St. Lawrence was at that time but feebly obstructed by defences, and Montreal might have been an easy prey to the force that would thus have been unexpectedly precipitated on her.

This general outline of the campaign was all an after acquisition. At the time, my humble view did not comprehend affairs on such a scale. I had known little save those vague details which might fall within the range of a young staff-officer, whose experience had not exceeded the boundaries of a maritime garrison.

Orders were received by the General, in whose suite I happened to be, to be on the frontiers, or "Lines," in April. In those days the geography, or topography, of that region was little known to the country at large. None of the maps pretended to more explicitness than to give Buffalo, Niagara, Oswego, &c. and stretched these few places over such a space, that one would be led to suppose they occupied the whole of it; and the public was quite in the dark with respect to those new villages and rivers which the incipient events of the war had already brought into notice. Sacket's Harbor, particularly, had been much talked of in the news-papers, but probably not one person in a million could have fixed it within a hundred miles of its locality. The map-makers were all busy, and endeavoring, by their hasty sketches, to keep pace with these developments; but, by the time one map would be out, indicating with satisfactory precision some obscure place which had just acquired a belligerent notoriety, another incognita, rising into importance in like manner, would demand an

amended edition. The place specified in the orders referred to, had not even this ephemeral distinction. It was in vain we examined maps, gazetteers, and tours: they gave no clue; and the best conjecture which could at last be resorted to, was, that it was some where on the inland frontiers. As the Head Quarters, whence the orders had emanated, were at Albany, it was deemed safe to proceed thus far, in expectation of being on the proper route.

It was no small business to prepare for this departure.—Thus far, the requisitions of service had been of easy fulfilment. To keep one's uniform well brushed, the sword and spurs bright, and be *toujours prét* for morning and evening parades, were all that had been required. We were often mounted, to be sure; but as our rides seldom took us beyond the reach of our wardrobe, our saddles had never known that unsightly appendix, named a valise; and, having a choice of days and roads, those only were selected, which brought no hazards of besprinkling from above or bespattering from beneath. The preparation for one of these holiday equitations, was no other than the superinduction of a pair of *cherrivallies*, which were worn, however, more for the bright buttons and other ornaments of which they seemed to authorize the display, than as a guard against defilements, of which there was not much apprehension under a bright sun and over dry roads. The task now in hand was far more difficult. An equestrian journey of some hundreds of miles called for much preparation. Every thing, however, that a limited foresight could suggest, was provided.

Such a start was an era in one's life. A desire to take leave of some friends who were off the direct route, led me to begin the journey in advance and alone. But this temporary deviation induced no necessity of encumbering my horse with unusual baggage. It is true my holsters had then a pair of pistols—an encumbrance that had not often burdened them before—their metalic buts peeping from under the bearskin in all the polish of unsullied service; and a sabre dangled at my side in the latitudinarian style of the day, banging my horse's flanks in a way that left the spurs little to do. In other respects there was not much the appearance of a campaigner about me, and, under the excitement natural to the moment, I put my horse on one of those hand-gallops, which was suited to his former brief excursions, rather than to the long march then before him. His pace was rather accelerated than moderated—as would have been proper on such an outset—by the bastinado applied by my sabre to his left flank, which he most naturally construed into a rebuke for his unsatisfactory speed. It was many miles before we came to a right understanding on this subject, or I bethought myself of the cause of his impatience; when, shortening the tethers of my belt, and

attaching my sabre to the waist, so that it became, literally, the "companion of my thigh," instead of my leg, moderation and an easy joy were restored.

The day was a true March day, not such a one as would have been selected by a volunteer equestrian. The wind, it blew high and blew strong, and the scudding clouds, even in the outset, threatened my bright equipment with a disaster, that is, a wetting, which they had thus far happily escaped.—My horse and myself had scarcely settled the difficulty about the sabre, and fallen into a good-humored movement, when a severe gust sent down a volume of rain, that menaced every thread on my back with immediate saturation. The first impulse was, agreeably to habits of more dainty times, to make rapidly for the nearest shelter, and avoid the coming foe of all starch and glitter. The second—which prevailed—was to brave the storm; and I continued to ride on in all the affectation of soldiership, imagining that each spectator of my contempt of a ducking, saw in it a presage of nobler daring. My horse, however, was far from sharing in my new-born ambition, and went by each shed with unfeigned reluctance, shaking the deluge from his flowing mane and tail with ill-concealed displeasure.

At Albany the chart of our destination was unfolded, and, after a delay of some days, we joined a cavalcade that was under orders for the same point. There were some General officers in it and their several suites, constituting a party of some military show and pretensions. The city of Albany was agape to see the exit, and, as some of the party had been residents there, and almost all had shared in the hospitality of the place, an interest was awakened by the event. Many a fair face was at the window, smiling encouragement, or looking regret, as admiration of the glories of war, or apprehension of its hazards, alternately prevailed. It was quite a gallant parade. Each horse, in anticipation of a long march, had been pampered into the most mettlesome mood, and danced and curvetted in all the spirit of high feeding. It had now become necessary to provide against temporary separations from the heavier baggage, which, being entrusted to a cumbrous wain, could not be supposed to keep up with our cavalry in expedition. For this purpose most of the saddles had a valise en croupe. It was the first time my horse had been condemned to such an imposition, and while we were moving through the streets, reconnoitring each window, to catch each smile on the cheek and tear in the eye of the fair spectators there, he revenged himself for the indignity by the most extravagant antics. As if determined to shake off the supernumerary burden, he more particularly exercised that part on which its weight rested, and kept his after heels flying in the air, to the utter

discomfiture of all grace and horsemanship. I had set my heart on caracoles, and every variety of curvet, as they would enable me to exhibit my skilful equitation; but no riding-master undertakes to provide rules for such an ultra prank as that of "kicking up." I lost every lady's glance, lost (for a moment) my beaver, and well nigh lost my seat. But that ultimatum of mortification was avoided. I clung to the saddle with all the energy of genicular power, and the restive animal, losing either his breath or his indignation, soon came to his equilibrium.

Our route lay along the Mohawk, and through those young towns between Utica and Buffalo, which then were only in their seedling state,—just germinating into sight, with every promise of growth and exuberance, but with the unsightly pod of originality still sticking to them. Every thing was in its inceptive stage, particularly the houses of entertainment. We reached Scheneatles one bright day just as the sun was setting. Some of us were at that age, when the heart, swelling and bubbling with romance, is ever ready to overflow. We looked on this beautiful lake with enthusiastic delight, and were willing to swear (having never been there) that Italy and Switzerland had nothing to equal it. Indeed by this time, having recovered from all the regrets that somewhat saddened the earlier part of the route, and looking forward, with kindling ardor, to the untried campaign before us, almost every object took the gay coloring of our own excited fancies. Our large cavalcade was often subjected to small accommodations, and we who were the junior members, always shared the fate of the "hindmost;" but neither coarse nor scanty fare, nor hard couches, could impair that gaiety of heart, which was nourished by inexhaustible spirits. We regarded all such things as a part of that professional ordeal, which it was our pride to pass through without flinching; and, having as yet experienced nothing more severe than these petty privations, we supposed we were already showing our powers of endurance.

Our party had all the gradations of character, from the revolutionary relic, down to the tyro, who now belted on his sword for the first time. We naturally fell into pairs, according to ages or tastes. A parity in these respects brought two of us much together. Our retrospects and prospects were much in unison. We had the same regrets and the same aspirations; and having exhibited some gallantry in one sphere, we hoped to show as much in another. But, among my comrade's accomplishments, he could not number that of good judgment in horseflesh. His steed had been purchased and had began the journey with fair promises; but farther trial developed a pulmonic infirmity, that gave his breathing, under

an ordinary amble, the sound of a high-pressure, and it was nick-named the steamboat. At that season the road was passable only in paths, and we generally moved tandem. This quadrupedal steamer, in such cases, was very often my file-closer, much more to my satisfaction than that of my horse, which generally manifested his displeasure at such a stern-chaser, by renewing his Albany antics, and throwing me on the pommel of the saddle. But every variety gave zest to the journey, and our cheerfulness of mind was never affected by any disturbances of the body.

Our down-lyings being generally in fatigue, our up-risings were not always the promptest, and some of us found little leisure for those duties of the toilette, which we had been habituated, on metropolitan stations, to regard as primary and indispensable. We had one among us, however, who, under all circumstances of exhaustion, weather, and limited accommodations, never neglected to pay that tribute of pomatum and powder to his head, which was authorized by a fashion that still fondly lingered about some votaries of *les bons vieux temps*. This was the more singular, as he was not an old man, although an elder soldier. Often after a night of mere mockery of rest, on a floor, which having had no acquaintance with the saw, but been rived out of the gnarled oak, still retained most of the protuberances and indentations naturally left by such a rude process, we forgot our ill-humor, in contemplating this courtly-looking head, whose pulverulent, farinaceous honors seemed to rise, each morning, immaculate from the pollutions of dirty roads and still more dirty inns. This head, which was borne aloft by a gallant spirit, was afterwards laid low in the imminent deadly breach, and was found, even among the reeking slain, still bearing the impress of a recent toilette. When this event happened, we, who had made ourselves merry at the expense of this cosmetic particularity, looked back to it with affectionate respect, as a trait of regularity of habits and independence of circumstances, which demanded of us at the time some such feeling.

When the party reached Cayuga lake, no such bridge was found there, as now spans its broad bosom. We were obliged to trust ourselves to boats and scows, that threatened to bring our campaign to a sudden close. It was a raw and gusty day, and had not Cæsar and his fortunes, in the shape of some of us, been on board, we must inevitably have found the honors we were seeking, only where Hotspur talked of diving for them; namely, in the bottomless deep. As we approached the western shore, a small crowd was seen at the landing, and an explosion of gunpowder soon showed that, if Cæsar were not among us, we had at least an Ex-magistrate of the State through which we were passing. The compliment was more

grateful to the man than to our horses, which, being unprepared for such a reception, were about to retreat overboard; and nothing probably prevented such accident on the water, but a counter accident on shore. The piece of ordnance used on this occasion had never perhaps been of the best, and had, on some previous 4th of July, by an unlucky explosion, been truncated almost to the trunnions, so that the cartridge was now easily deposited in its chamber by the hand, without any intervention of the ramrod. The report of the discharge was of course but small,—little more than if the powder had been burnt in an open kettle; and it would scarcely have reached the ears of our cavalry, had not a shout been thrown in at the moment by way of accompaniment. But the zeal of the gunner—who, laid claim to having lived, if not fought, in revolutionary times—waxed warm with the sound, which he doubtless attributed altogether to his gun, and in his anxiety to keep up the punctuality of the salute, forgetting to "swab out," he thrust in the second cartridge on the yet smouldering heel of its predecessor, which was returned on his hands while they were still pushing it home, and his face was not far off. The unfortunate veteran presented himself before the Ex-magistrate, whom he had delighted to honor, with every hair on his face and forehead singed off, so that he looked much like a plucked fowl, which had just passed through the blaze of a candle for the benefit of the pin-feathers. Some misfortunes are too ludicrous for grave sympathy. That of this extemporaneous artilleryman was of this character; and, as he stood, before the group, denuded of eyelashes, eyebrows, and foretop, his whole person begrimed, and his skin looking as if the contents of a pepperbox had been discharged into it, he found more merriment than condolence in the countenances around. The Ex-magistrate could not assauge the smart of his excoriation, but proposed to assuage his thirst in a bumper, commending his locks and lashes to time—and some of us added, (aside) macassar oil—for restoration.

We reached our place of destination in due time, and, when we beheld it, were no longer surprised that it had escaped the notice of map and gazetteer makers. Our large cavalcade found but poor entertainment for either man or horse; and it was with pleasure we soon heard orders to advance to Buffalo, which, by comparison, was a desirable place. This village had not yet been burnt by the enemy, but it had been sometime the encampment of friends, from whom, according to the adage, it had had occasion to pray for deliverance. The ruins of a comparatively large tavern led us to suppose that the enemy had certainly been at work there. But we soon learned that his irruptions had not extended thus far, and that the cause was to be found nearer home. It appeared that the

Publican of this establishment, had made some comparisons which proved odious to a company of volunteers, whose members were then expending their patriotism and patience afar from those comfortable firesides, which they had left in a spirit of zeal, that had no doubt been well cooled by a hyemation on the frontiers. Or else, like Hudibras' dagger, which

> ——————for lack
> Of something else to hew and hack,

eat itself up with rust; these candidates for fame, becoming impatient for the want of opportunity of meeting the enemy, may have determined to have a little belligerent exercise on their friends. At all events, this obnoxious house was said to have been circumvested one night by this restive band, which left not one piece of timber on another; and when we arrived, a small *shantee*, erected over a part of the foundation, was standing as a memorial on the ruins. But this shantee proved a true Phœnix. It was already a matter of boast, that the *juleps* muddled and fuddled there, were bringing in a revenue that would soon restore the demolished structure;* and the prediction was fulfilled.

Soon after our arrival, all the General officers and their suites, rode down to Black Rock, a place a few miles below the strait of Niagara, nearly opposite to fort Erie, the British work. There were two ways leading to it,—one by the beach, within full view and gunshot of the enemy, and the other somewhat inland, and generally screened by woods. It would seem to have been most prudent and natural, under all circumstances, to have taken the latter, as the party was somewhat numerous, and evidently, to the most distant observation, of some rank. But, perhaps a little in the spirit of gasconade, it was determined to take the former. The party appeared to attract much attention from the opposite shore, and a temptation *may* have been felt to punish our ostentation by a few shots from the ordnance that commanded the beach. Luckily, the courtesy of war prevailed. Had we known, however, at the time, what an act of discourtesy on our side had to be atoned for, we might have seriously apprehended such a chastisement. It was among the boasts that subsequently met our ears, that in the winter just past, when it was known that a dance was on foot within fort Erie, a small party of Americans had been permitted to advance on the ice, which then bridged the head of the strait, in order that a volley might be fired in the neighborhood of the fort, in the hope of producing some

* This tavern was rebuilt of brick; and the owner used to say, that he had "sold a julep for every brick in it."

disturbance among the merry-makers. It was believed however, by the more generous-minded, who saw something very anti-chivalrous in such a practical joke, that, either through the adverse wind which prevailed at the time, or the prudence of the officer who led the detachment, and perhaps did not wish to peril too much in such an adventure, and therefore discharged his scare-crow volley out of hearing, the festivity went on without interruption. The forbearance of the British, and observance of the liberal rules of warfare, made a pleasing impression on our minds. Another incident occurred during the day, which strengthened this impression. Most of the party dined with the commanding officer at Black Rock—that accomplished civilian and gallant officer, although, as Bladensburg perhaps afterwards proved, no General—and after dinner, a bugler was placed on the bank, and directed to play one of his calls. As soon as he had finished, a bugler on the opposite shore was heard to answer with all the precision of an echo. This was only a symphony to a most interesting rivalry between the two buglers, which ranged through the whole catalogue of calls and marches belonging to that martial instrument. We may not be ashamed to admit, that, in this instrumental war, we came off second best; for the British buglers excelled, and we had then little skill in martial music, save on the spirit-stirring drum and the ear-piercing fife.

As soon as boats could be prepared, most of the troops in this quarter moved down the strait, in order to concentrate at fort Niagara, agreeably to the plan we have before adverted to. The intervening islands so masked the preparation and movement, that the enemy probably had no suspicion of them until the whole flotilla was on the descent, and beyond the reach of his guns. At all events, no annoyance was attempted, and the flotilla reached Schlosser without any accident, where the troops encamped. As we were then in the neighborhood of the falls, some of us rode on to an inn there, in order to be in readiness to view them early the next morning. It was sometime after dark when we arrived at the inn, and curiosity was left to moderate its impatience as it best could. But, although it had no avenue through the eye, it found the ear open, which greedily took in all the *audible* characteristics of the cataract; and, listening all night to the thundering serenade, the eye kept open for company, and fancy was not dormant. The house we occupied was none of the firmest, and might have been shaken by a less powerful concussion; and trembled under that around it, like a grist-mill, with all its wheels in motion. My long vigils were filled up by attempts of fancy to portray the mighty cause.—La Houtan, after ocular demonstration, estimated the plunge to be seven hundred feet. Had he made the estimation under

my circumstances, he would probably have added another nought to his figures. It would be difficult to say what were the exaggerations of such a sleepless and tantalizing night; but it may easily be supposed that they exceeded all realities. Such was the case. I was disappointed in the morning; and would advise all others to see the falls before they sleep.

That day we reached fort Niagara.

FOR THE MILITARY AND NAVAL MAGAZINE.

THE SURVEY OF THE COAST.

This work, so necessary to our country in a commercial as well as a military point of view, and in many other respects so capable of producing the most important results, is once more committed to the hands in which it had been placed by President Jefferson, with whom the measure originated, and was one of the many exalted conceptions that characterised his mind.

The President has again appointed for its execution under the reviving law of last year, Mr. Hassler, who had begun it in 1817, under the law of 1807, and the Treasury Department has now, as it formerly had, the direction of it. We may therefore hope, that the testimony given by Mr. Jefferson to the work in the earliest stage, that "it would have been an honourable monument of the state of science at this early period of our history," will at a future day apply to its continuance, as resumed since last autumn, and that it will not again by any fatality be damped by the "regret that it was not carried into execution" which Mr. Jefferson added to his approbation.

The interruption of this work in 1818, so shortly after its commencement, permitted only the first scientific bases to be established; and thus deprived the country for many years of the advantageous results which it would have yielded, had it been allowed to proceed; an effect that is seriously felt in all the public Departments, which were to have enjoyed the benefits of all its results. We hope that permanent stability will now be secured to the arrangements, so judiciously made by the President and the Treasury Department, for restoring the undertaking to its original plans, principles, and mode of proceeding; by which the country will reap the benefit, not only of an accurate chart of our whole coast, to the want of which so many shipwrecks may be attributed; but likewise obtain all the necessary data for the defence of the same, and be possessed of that auxiliary information which must form the foundation of well directed improvements in our ports and harbors, where they may be needed.

Already in the beginning of the last century, the men of science of France prevailed upon their Government to give an impulse to the attainment of an accurate knowledge of the figure of the Earth by trigonometric measurement of degrees at the Equator, and on the Arctic Circle, a branch of science so indispensable to navigation.

The results that followed, and the prospects of the many useful accessories that accompany such works, could not otherwise than invite to a further prosecution of similar works: they promised the means of obtaining that object so much desired—viz: an uniform standard of weights and measures, taken from nature, such as would be common to all nations of the globe, as it would have nothing of the selfish, abitrary nationality of all other weights and measures, none of which are based upon an actual connected system and natural unit.

The expected renovation of the whole civil establishment of France, induced her scientific men to apply to their Government for the means of making an extensive triangulation, with a view to the nearer determination of the elements required for that purpose, as well as for the science in general, and the various objects of public utility to which it would apply.

The trigonometric junction of the observatories of Paris and Greenwich, by operations carried on simultaneously in England and France, by Gen. Roy, and by Cassini, had preceded these works so immediately as to be hardly completed, when those so amply recorded in the "Base da Systém Metrigue" were begun.

These were the impulses given to the Mathematical Sciences and the Arts connected with them, which in theory as well as in application, elevated them so eminently as to occupy the most distinguished position in the civilization of our present age; and securing their duration through all the changes that the political connections of Europe have undergone for the last forty years, have now formed one of the bands of union between nations.

When by the operations of the metric system, France had a meridional arc of 12 degrees measured trigonometrically, and England by those of the junction of the observatories of Paris and Greenwich, a well established base line and series of triangles, that presented a ground work available for an accurate survey of the whole country, the direct usefulness of their extension to objects of public administration, induced both countries to obtain by triangulation, accurate maps of their countries and their coasts.

Though France had already, by the map of Cassini, a specimen of trigonometrical surveying, superior to what any other country possessed at that time, yet a new, full triangulation, with the additional improvements of the times was made over

the whole country; and Great Britain by a triangulation from the Isle of Wight to the northernmost of the Shetland Islands, surveyed all England and Scotland, and is now extending it over Ireland.

During the extensive conquests of France, she extended her triangle system over all the countries she invaded, as far as circumstances permitted; and the great utility of the system was so apparent as to induce the subsequent Government, after the French had withdrawn themselves, to continue, extend, and work out in detail all that was left to be done; and an union of international feeling has actually been formed, which in a degree assists in assuaging the acrimonies so commonly engendered by long wars.

We have now close series of triangles, extending from Formentera, in the Mediterranean, to Unst, one of the northernmost of the Shetland Islands, from the South end of Naples to Sweden, from Bordeaux to Dalmatia, from Brest to Czernowitz, on the Turkish frontier. Russia is engaged in the trigonometric survey of the Baltic, and joins Prussia, whose triangulations join the present limits of France; all Holland has been triangulated, and all the main triangle chains just enumerated, are filled up with secondary triangles, to the minute details, from the Mediterranean to the Baltic, and from the Atlantic to the interior of Russia, including all the coasts.

With such examples before us, in confirmation of the undoubted utility of such works, and the correctness and universal approbation of the trigonometric operations, we may with safety and pride, step forward and engage in a similar operation upon our own hemisphere; by which we may, in some degree, place ourselves at the head of the improvements of this continent: indeed in this position, in a line of scientific improvements so closely connected with the public weal, it becomes our duty to take the lead.

Considering the uncertain results, and the ultimately greater expense which will attend partial and unconnected surveys of the coasts, there is not the slightest occasion for a Government like that of the United States, at this time, to consider the expenditures necessary to carry into execution a survey, upon the principles that are now, and were originally, in contemplation; one which will bear an honorable comparison with all the above quoted European works: and if with the indisputable usefulness of the work before us, and an overflowing Treasury, of which we complain,—if with the ample facilities which the present state of the mathematical sciences afford, and while we stand so much in need of a survey of the coast, for the safety of our navigation, and the defence of our shores, we refuse to engage in its execution, and to give it that character which will make it permanently useful and honora-

ble, how can we excuse ourselves, in the eyes of the civilized world?

We cannot therefore doubt, that the principles and regular progress of the work, are permanently fixed, and that they will gradually bring us results at once useful and honorable; augmenting in extent as the work progresses: for this, the fitness of Mr. Hassler to the task, appears to give us the necessary assurance; as the principles, organizations, and mode of operating in his former work, have been unanimously acknowledged by the most eminent men of science of that time, as of the first character for the intended purposes.

We have every reason to expect that the result of this important scientific operation will reflect great honor on the National character.

MEMOIR ON GUNPOWDER.

(Continued from page 96.)

SECTION VI.—PROOF OF GUNPOWDER.

163. Gunpowder is invested with difficulties, from the earliest stage of its manufacture to the very last result obtained by trial, for ascertaining its explosive powers. And the many methods that have been invented, and that are still in use for proving it, constitute a sufficient testimony of the difficulty attending this indispensable, final check upon its manufacture.

164. To conduct proof trials with skill, especially of gunpowder of different kinds, and of unknown systems of manufacture, a comprehensive knowledge of its nature and action is necessary, both in order to guide the experiments to results that are satisfactory, as well as to deduce from them conclusions that are substantial, and which may be with confidence depended on. In proving gunpowder, as has just been observed, extraordinary discrepancies sometimes take place that seem to defy reconciliation: and indeed the results are often so capricious, singular, and unexpected, as to make it sometimes altogether impossible to account for them. But though this be the case, I yet think there can be but little doubt that no apparent anomaly is an absolute departure from fixed principles, but rather an effect which results as harmoniously from established causes, as any phenomenon that occurs among the better known, and more widely diversified operations of nature. The

difficulty lies in discovering the causes of irregularity;—to apply to them known and acknowledged laws adequate to their solution would not probably be difficult, were they but once discovered.

165. I am of opinion that the true principles on which gunpowder ought to be tested or tried, as to real strength and quality, have been much misunderstood, or, if known, the knowledge has been far from general. The French certainly do not appear to have hit upon the true method, by confining gunpowder closely, as in their mortar eprouvettes; for in these instruments there is not a very material difference of range between powder which is very good and that which is very bad. The English government method of proof approximates much more closely to true principles, and is certainly better adapted to show the real quality of powder than the French eprouvette. I shall not however anticipate our subject; these relative methods will come in due course under consideration. It is nevertheless a matter of first-rate importance to determine what the particular manner of proof is which may be depended on, and I hope to establish that point in the course of the present section.

166. It would be a singular advantage if any single trial could be devised which, in itself, would be decisive and satisfactory; and calculated to shew accurately the real explosive force, as well as the practical and available effect of gunpowder; a method on which dependence could be placed, as being indicative of the general consequences that would result in practice, whatever might be the nature, quantity, or quality of the powder employed. But I know not of any one single experiment that possesses the property of exhibiting these points satisfactorily, or even in a manner approximating to truth. The general objection against every single existing mode of trial is, that whatever be the result it may give when two powders of different systems of manufacture are compared together by it, accordant results do not follow if the same powders be tried, generally, with service charges, in the several denominations of ordnance used in war.

167. The practical artillerist, on whom usually devolves the office of ascertaining the proof range of gunpowder, will perhaps wish for simplicity, and for the specification of some single easy trial by which he may ascertain not only the actual range of powder, but judge of its quality or capability of producing any particular given effect he may require. I have just stated that I know of no such trial. Such knowledge can be ascertained only by actual experiment with the powder he has to make use of. Its range-distances must be determined from practice. And this remark, I apprehend, will hold good universally, whether good gunpowder be used or bad. To ascertain its range-distances the artillery officer must make the ex-

periment for himself, and it is more than probable, it is almost an absolute certainty, that he will have to do this as often as he uses a different gunpowder, and a different piece of ordnance. Gunpowders will not range alike, nor will different pieces of ordnance, though of the same denomination, range alike (155); and therefore the mere proof of gunpowder can afford no further criterion for the guidance of actual service, than as it gives the range-distance of the particular charge, in that particular piece of ordnance in which the proof was made.

168. Let me be allowed here to offer an especial caution.—Equal range has often been mistaken for equal quality.—This is a great error, if applied universally. I shall hereafter, as we come to them, specify the particular cases in which, if different gunpowders range equally, they may be regarded as equally good: but, to establish the position that the distance to which any powder may project a shot or shell is not a criterion of its quality,* unless under particular circumstances, I shall give the comparative results of several experiments made between the English and the Bombay powders; the range of the English powder being taken in every case as unity, and the range of the Bombay powder reduced to its corresponding fraction; observing only that I commence with one trial in which the Bombay powder ranged equal to the English.

DESCRIPTION OF ORDNANCE.	WEIGHT OF				English cannon powder	Bombay cannon powder
	Powder.		Shell.			
	lbs.	*oz.*	*lbs.*	*oz.*	*Relative Ranges.*	
24-pounder iron gun	8	—	23	10	1.00	1.00
8-inch French eprouvette . .	—	3	64	—	1.00	.88
Pendulum eprouvette . . .	—	2	—	—	1.00	.76
10-inch iron mortar	2	—	85	8	1.00	.49
8-inch ditto	—	2	64	—	1.00	.28
Ditto ditto	1	—	41	10	1.00	.24
5½-inch mortar	—	2	16	—	1.00	.22
10-inch iron mortar	—	2	96	—	1.00	.13
8-inch French eprouvette . .	—	½	64	—	1.00	.09

169. In the course of this Section, the whole or the greater part of the actual ranges of the above trials will be alluded to and specified in illustration of certain positions. I have preferred the decimal notation of them here for the convenience of comparison, and to shew that though a bad powder, which in one case ranges as far as an acknowledged good powder, yet in another method of trial ranges not a half, or a quarter, or

* See also paragraphs 154, 155, 181, 184, 204.

a tenth, but actually only an eleventh part (0.09) of the distance of the same powder to which it was equal when used in large quantity. I scarcely think it possible to give a more powerful or satisfactory confirmation of the point to be established; nor can there be any thing clearer than the inference to be drawn from it, viz. the circumspection required in decdiing on the quality of different gunpowders from particular trials. It is evident that with a knowledge of this fact certain methods of proof could be selected, in which inferior gunpowder, especially if unpressed and unglazed, would give as high a range as the best, and with all the details of the experiment on either side conducted with perfect fairness; but the results of such a proof would be most delusive.

DEFINITIONS.

170. Before we proceed further, it may perhaps be necessary to define two or three terms hereafter to be used in a more particular and determinate sense. They relate to those points to which the attention should be expressly directed in proof trials of gunpowder, viz.

1. Its real inherent strength.
2. Its practical or available force.
3. Its manipulative quality.

171. The absolute inherent strength of gunpowder is not perhaps to be ascertained at all, by trial, in any instrument, or piece of ordnance in common use. Bad gunpowder, by exploding slowly, would require to be confined by an enormous superincumbent weight, in order that the whole might, if possible, be kindled before the resisting obstacle began to move. In a proof of this nature, a particular kind of instrument must be used; and there are grounds for belief, that in such a mode of trial, the results would depend more upon the chemical constitution of the powder, than on its manipulation, which is directly contrary to the usual results of practice. By ascertaining the real inherent strength of gunpowder is therefore intended, *that* mode of proof, or those methods of proof, by common ordnance, in which gunpowder of good quality will produce a much higher range with a small charge than bad gunpowder, although the latter may, and will in some particular cases, and under certain circumstances, range as far as the former, or further.

172. The practical or available force of gunpowder means, in other words, the absolute ranges it will give in ordnance and artillery of all sizes and denominations, with all the diversified multiplicity of charges used in actual service. The ascertain-

ment of these range-distances belongs to the department of practical gunnery. The proof of gunpowder aims only at an approximation as to general effect. Actual range-distance may therefore be considered synonymous to the term, practical or available force.

173. The manipulative quality of gunpowder is an expression employed to include several ideas, viz. the purity of the ingredients; the perfection or imperfection of their mixture; the degree of their incorporation; and the specific gravity of the powder. How the whole of these points are to be ascertained or judged of, will be shewn hereafter.

174. We may now proceed to examine the merits or defects of the various instruments at present in use for proving gunpowder; and first,

OF VERTICAL EPROUVETTES.

175. In the common vertical eprouvette the powder acts by sudden blast and impulse: the superincumbent weight immediately rises, the flame escapes, and a great part of the strength of the powder is thereby lost. The established objection against this method of proof is, that the powder cannot act by its pressure, and that therefore the instrument is not adapted to exhibit accurate results. Four drachms (109 grains) of powder, in the vertical eprouvette used daily in His Majesty's works at Waltham Abbey, raised the resisting weight, about 25 lbs., on an average 3 inches and an half high.

176. That fired powder might act by its pressure, and that the foregoing objection might be obviated, I constructed a vertical eprouvette on the principle of the common brass mortar, having a cylindric chamber sufficient to contain 100 grains weight of powder. The superincumbent weight, or resistance to be raised, was 500,000 grains, upwards of 71 lbs. avoirdupois. It was made to slide in upright guides, and had a plug below it that fitted the bore of the eprouvette as nearly air-tight as possible. The idea I had was, that by firing a charge of only 10 or 20 grains, this instrument would shew the absolute inherent force of any kind of gunpowder; and that, as the resistance exceeded the weight of the powder in so very large a proportion, it would afford great accuracy of result. But my expectation was disappointed, for the results were in proportion as variable as in common trials, and the ranges such as could not be depended on. I therefore abandoned it.

177. This eprouvette, however, afforded convincing testimony of the immense increase of effect produced by closely confining gunpowder, as well as the loss of power occasioned by windage. We have seen (175) that 109 grains of His Majesty's powder ranged 3 inches and a half high; only 10 grains in

this instrument raised a threefold greater weight more than 12 inches. But the experiment is perhaps worth being recorded.

HIS MAJESTY'S RIFLE POWDER.	Eprouvette as nearly air-tight as possible.	Eprouvette with one-hundredth part of an inch windage.	Proportion of the superincumbent weight to the powder.
1.	2.	3.	4.
10 grains	12.70 Inches	3.4 Inches	as 50,000 to 1
20 ditto	31.48 ditto	19.15 ditto	as 25,000 to 1
30 ditto	46.07 ditto	27.80 ditto	as 16,667 to 1

178. The first column shews the weight of the powder; the second, the range of the eprouvette when air-tight; the third, the range when it had a little windage; and the fourth, the number of times the weight to be raised was greater than the weight of the powder. A comparison of the second and third columns, shews the great loss of power that arose from an alteration in the plug, which reduced it to the one-hundredth part of an inch smaller than the bore. The difference of effect produced by powder in this eprouvette, and by the 109 grains in the common eprouvette, is exceedingly disproportionate, and the loss of power, by a very trifling degree of windage, remarkable.

179. But the chief objection against this instrument, and I apprehend against all instruments constructed on the same principle, is, that the results given are not to be depended on,* and the discrepancies are such as to form part and parcel of those discordancies which have before been alluded to (162, 164).—I think this representation is fully borne out by the following memorandum.

ORDNANCE.	WEIGHT OF		CANNON POWDERS.		
	Powder.	Shell.	English.	Allahabad.	Bombay.
	grains	*lbs.*			
Vertical Eprouvette, see par. 176	30	—	30. in.	34. in.	28.8 in.
	oz.				
8-inch mortar eprouvette,	3	64	288 yds.	217 yds.	255 yds.
5½ inch mortar.	2	16	175 "	134 "	38 "

* "Nothing could be more deceptive than the former mode (of proving gunpowder) by the vertical eprouvette, in which a soft and rotten grained

180. These are all the same opponent powders, but although the vertical eprouvette represents that of Allahabad to be superior to the English, the other two trials shew it to be inferior. Observe also the high range of the Bombay powder in this, as well as in the mortar eprouvette; and again, notice how discordant the result is which it gives in the 5½-inch mortar.—I could multiply examples of these discrepancies, but let these suffice to shew that the vertical eprouvette exhibits fallacious results.

MORTAR EPROUVETTES.

181. French mortar eprouvettes are very much like the common eight-inch brass mortar, only that they have small chambers which contain no more than a given small quantity of powder; for instance, two or three ounces; and from the quantity which they contain comes their denomination, the two-ounce or three-ounce eprouvette. The shot is of brass, or of gun-metal, fashioned accurately to the shape of a sphere; it weighs sixty-four pounds,* and has one-tenth of an inch windage. These instruments produce a high range, on the principle that the force of gunpowder is proportionate to the space it occupies (142); but they are not adapted to ascertain the true strength of gunpowders of different modes of manipulation, as the following proofs testify, viz.

POWDER.	WEIGHT	ORDNANCE.	RANGE.
	ounces.		
Bishop's rifle	2	2-oz. eprouvette	215 yards
English L. G.	—	64-lb. brass ball	208 "
Bishop's rifle	2	8-in. mortar	75 "
English L. G.	—	64-lb. brass ball	117 "
Bishop's rifle	2	5½-in. mortar	130 "
English L. G.	—	16-lb. shell	211 "

182. The first of these trials only was made in the mortar eprouvette; the others are inserted for comparison. The powders were the same in each trial. It will be seen how different the results of the mortar trials are, compared with that shewn by the eprouvette. It is not necessary here to offer any comment on this discrepancy, my object being merely to shew that these eprouvettes give results which cannot be depended on.

powder would produce a much greater effect than the hard and good serviceable powder."—*Lieut-Gen. Congreve.*

* This precise weight varies in different instruments, and so does the degree of windage.

183. There appears, however, to be an exception to this remark; but the exception constitutes a departure from the original design of the instrument.—If a very small charge of powder be used, these eprouvettes may be employed to ascertain the real inherent force, as well as the practical effect of gunpowder. I speak without the support of direct experiment; but I think it probable that when these instruments are fired with their full charge, they may possibly exhibit the general effects of gunpowder, when it is used in actual service, in field-pieces, and in large ordnance. I speak only from analogy, but I think it likely a full charge would pretty nearly indicate the relative practical ranges of different gunpowders in artillery—that with their chamber one-half or one-third filled, they would shew the relative ranges in large mortars with medium charges, and that fired with only half an ounce of powder, they might be very well used for ascertaining the absolute inherent force and explosive quality of gunpowder generally. It would be well worth the trouble of the experiment, to ascertain if these ideas be at all borne out by actual practice.

184. These eprouvettes constitute the national system of proof in France; and they are also used in different parts of the Continent of Europe. With the modifications just suggested, I think they may be usefully employed for ascertaining the quality of gunpowder; but in the manner they are always used, I have very substantial grounds for asserting that they give unsatisfactory and false results. In the instance of unpressed and unglazed powder tried against powder of greater density, they exhibit a range frequently in favour of the unpressed powder (181), while other trials, on which dependence may be placed, plainly testify its inferiority; nay, reduce but the charge to a low degree, and the same instrument will then bear the same testimony also. The following trials may be adduced in support of what has been stated in this paragraph, and I think that to reconcile their variations would be found extremely puzzling.

CANNON POWDER.	WEIGHT OF		ENGLISH, 1813.	MADRAS, 1825.	BOMBAY, 1825.
	Powder.	Shell.			
	oz.	*lbs.*			
8-inch eprouvette .	3	64	288 yds.	279 yds.	255 yds.
Ditto	1	—	57 do.	50 do.	23 do.
Ditto	½	—	33 feet.	15 feet.	3 feet.

UNITED STATES' NAVY YARDS.

RANK.	Portsmouth, N H	Boston.	New York.	Philadelphia.	Washington.	Norfolk.	Pensacola.
YARD.							
Commandant	W M Crane		I Chauncey	J Barron	I Hull	L Warrington	A J Dallas
Master Command't	G W Storer	J Smith	M C Perry	W M Hunter	J H Aulick	E A F Vallette	L Rousseau
Senior Lieutenant	T Crabb	E B Babbit	J A Wish	S Breese	J B Hull	F Forrest	W Taylor
Surgeon	J Cornick	G S Sproston	J S Wily	W P C Barton	T J Boyd	J Cowdery	B F Bache
Assistant Surgeon	None	A G Gambrill	T L Smith	None	None	G W Palmer	None
Purser	J Wilson	W S Rogers	J M Halsey	T Breese	T Winn	J Brooks	J H Terry
Sailing Master	J Mull	R Knox	F H Ellison	J Ferguson	M Dove	J B Potts	N Warren
Chaplain	None	J P Fenner	A Searle	None	W Ryland	T J Harrison	None
RENDEZVOUS.							
Commander	None	T H Stevens	J D Sloat	T M Newell	None	J H Clack	None
Lieutenant	None	H B Sawyer	H Paulding	F Buchanan	None	W H Gardner	None
		F Ellery	H W Ogden	J B Montgomery		W M Armstrong	
Surgeon	None	B R Tinslar	D S Edwards	W Smith	None	J R Chandler	None
RECEIVING VESSEL							
Commander	None	W V Taylor	W J McCluney	C Gauntt	None	A Fitzhugh	None
Surgeon	None	E Borland, Ass't.	S Rapalje	None	None	None	None
Purser	None	None	C O Handy	None	None	D Mc F Thornton	None
CIVIL LIST.							
Navy Agent	J Laighton	D D Brodhead	J K Paulding	H Toland	E Kane	N Legrand	B C Willis
Naval Storekeeper	R H Ayer	G Bates	T Craven	R Kennedy	C Selden	G Galt	R Joyner
Naval Constructor	J Floyd	J Barker	S Hartt	None	W Doughty	F Grice	None
Clerk of the Yard	J P Simes	S Etheridge	G W Lee	H S Crabb	E W Clark	J L King	D Munro
Command't's Clerk	J Christie	J Etheridge	H J Willett	A Wolff	J Etheridge	S B Brown	A Breese
HOSPITAL.							
Surgeon	None	None	W Swift	T Dillard	None	T Williamson	J Hulse
Assistant Surgeon	None	None	S Sharp	S W Ruff	None	W G Micks	W A W Spots-wood

FOR THE MILITARY AND NAVAL MAGAZINE.

NAUTICAL REMINISCENCES.

Commercial pursuits, while they have added to the comforts, and contributed to enlighten the great mass of human beings, have, on the other hand, been fruitful of individual misery. If enterprise in the pursuit of wealth has aroused the energies of the human character, and illustrated it by acts of heroism and exalted courage, so has it, by the successful completion of its projects, tempted the cupidity of the desperate, the indolent, and the lawless.

The virtues and vices of the old world have been gradually extended to every quarter of the earth; arraying the incongruities of individual character, and placing them, as it were, in contrast with the opposite attributes of remote climes, and the simplicity or rudeness of an untaught people. The Pacific Ocean, and those countries washed by its waters, may, in the history of events which have there occurred, illustrate the truth of these observations. What other portions of the globe where nature has been more profuse! A genial sun, and a fruitful clime had lent their influence to form the character of the inhabitants. Mild, generous, contented, ages had passed away, leaving them to the enjoyment of those blessings; but the first sail from remote and civilized countries was the sign, which, like the finger of Time, has pointed onward ever since to change—unceasing change. Freedom has been converted into bondage, smiles to tears, and abundance to want. The quiet villages of the natives have given place to noisy towns of trade, the light canoe to the freighted ship, or armed corsair, and every scene assumed new features, and acknowledged new masters.

It was in these seas, in the course of my professional duties in the year 182—, that I became acquainted with the history of a young officer of the Chilian Navy, whose life appears to have been attended with so many singular and romantic incidents, that the narration of a few of them may prove interesting to some of your readers.

The year previous to our arrival in the Pacific Ocean, the coast of Chili had been infested by a gang of freebooters, at the head of which were two fearless and enterprising chiefs, named Benanides and Martinillo. An expedition, fitted out by the Chilian Government to destroy or disperse them, resulted in the capture of Benanides and several of the gang, who were sent to St. Jago, and were there immediately executed in the public *plaza;* but Martinillo, with a number of his men, escaped in whale-boats, and continued to hover about the coast to the annoyance of commerce, and to elude the vigilance of his pursuers.

Among those sent in search of him, was the young officer to whom I have alluded; a native of Scotland, and formerly of the British Navy. He was in command of a fine sloop of war, and being of a bold, active, and enterprising character, he pursued the object of his search with the greatest zeal and diligence. In the course of his frequent communication with the shore, he at length ascertained from some fishermen, that a party of men, in boats corresponding to those in possession of Martinillo, had landed but a short time previously at the mouth of the river Maule. For thence Capt. R — immediately made sail, and approaching the place cautiously in the night, he manned his boats, headed the expedition himself, and at an early hour of the morning, pulled for the shore, where he landed soon after daylight so suddenly, as to completely surprise the pirates, who, until that moment, thought themselves perfectly secure. They at first attempted to fly, but finding their retreat cut off by some horsemen of the country, with whom Capt. R — had previously arranged to meet him at a specified hour, they turned, determined to make a desperate resistance, and either cut their way to their boats, or sell their lives dearly. Martinillo himself singled out the one, who, by his authority, seemed to command his pursuers, and darted towards him with the spring and ferocity of a tiger. Capt. R —, by no means intimidated by the muscular form and fierce onset of the pirate, advanced boldly to meet him, single handed; but two marines, who had followed their commander closely, observed the pirate's threatening movement, and levelling their muskets, they interrupted the rencontre by firing two musket balls directly through his body. At the same moment, one of the horsemen threw a *lassau* over his neck, and clapping spurs to the horse, threw him to the ground, and continued to drag him for a considerable distance. One of the sergeants, by way of completing the work of death, ran up to him as he lay prostrate, and with the butt of his musket struck him a blow on the forehead, which seemed sufficient to have shattered his head in pieces. In the mean time, the remainder of the gang was so spiritedly attacked in front by the sailors, and in rear by the horsemen, with that apparently harmless, though most effective weapon, the *lassau*, that several of them were killed or wounded, and all the others made prisoners. Capt. R — now returned to his ship, and immediately had the prisoners assembled on the upper deck, where he caused them all to be executed, by being placed, one by one, in the bow-port, and shot by a file of marines. Thus terminated the career of this band of pirates, which had so long spread terror along the coast of Chili; and all danger to commerce being now at an end, Capt. R — returned to Valparaiso with his ship, where he received the most complimentary acknowledgments of his valuable services, both from

the government and the commercial community. The services of the squadron being now no longer required, they were laid up in ordinary, and the officers left without employment, and many of them without means. The government was greatly in arrears to them, but always much more profuse in promises than in payment.

It was several months after this period that Capt. R —, finding there was still no prospect of a demand for his services, and being almost without funds, resolved to try the success of a sealing expedition to the Island of Mocha, situated near the coast of Chili, about 80 miles north of Valdivia, and 300 miles south of Valparaiso. With this view he purchased a whale-boat, provisions, and the necessary implements for sealing; and made an arrangement with one of his brothers, and five good men, to join him in the undertaking. Having completed his preparations, he bargained with the captain of a coasting schooner to land him on his voyage to Valdivia. He accordingly embarked, and had a good run to the Island, but on approaching the shore, the surf was found to be so heavy, that the provisions could not be landed, without incurring great risk. It was therefore determined to take in the boat a sufficient supply for a few days; and the captain of the schooner promised to return from Valdivia, as soon as he had delivered the other part of his cargo, by which time, he thought, the weather would probably change, so as to enable him to land the stores. With this arrangement Capt. R — and his crew left the schooner, and proceeded to the Island, where the surf was running at an alarming height; but by skilfully taking advantage of the *third breaker*, the light whale-boat rode over it with the buoyancy of a gull, and landed safely on the beach.

The boat was immediately hauled up beyond the reach of the surf—a tent pitched, and every arrangement made for their comfort, which the absence of their stores and furniture would admit of. Several days passed off in preparation for their future operations; the wind had become moderate, the weather mild, and the sea abated; but still there were no signs of the return of the schooner, and they began to grow apprehensive for the fate of their provisions. The low state of their temporary supply, admonished them that it was full time to look to their situation; therefore Capt. R — proposed to his brother to take the boat and crew and go over to Valdivia, to ascertain what had become of the schooner, and in the event of the captain's dishonesty, to make such other arrangements as might become necessary for the prosecution of their enterprise.

The brother immediately departed on his errand, leaving Capt. R — alone on the Island; and as the weather was perfectly clear, and the breeze moderate, every thing promised a speedy voyage. R — endeavoured to while away his lonely

hours by rambling about the Island, and looking at the fine horses which there run wild in numerous herds; but at the end of the third or fourth day, he began to cast anxious glances in the direction of Valdivia, hoping every moment to see the small white sail of his whale-boat on her return. Several days passed, during which he kept a constant look-out; but still the close of evening brought him nothing but disappointment.—His anxiety increased with delay, and painful apprehensions arose in his mind, as to the probable fate of his brother and boat's crew. In this state of feeling he sauntered along towards the top of the Island, until he reached one of its highest points, which gave him an extended view in the direction of Valdivia; but no object was to be seen, except the blue outline of the coast, and still farther in the distance, the snow-capt summits of the lofty Cordilleras. He then cast his eye round the horizon, but saw nothing but a few dark clouds rising in the S.W. which threatened a change of weather. At length after gazing until his eye became weary, he was about to descend, when he observed a small white speck on the water. He watched it for some time attentively, and as it approached, his heart bounded with joy to find that it was his whale-boat. It was still early in the afternoon, when the boat had reached to within three or four miles of the Island, and the clouds which had been seen in the south-western horizon had gathered into one dark mass, and were driving rapidly onward in the form of a heavy squall. Capt. R — watched its progress with intense anxiety, now glancing his eye at its threatening approach, and then at the boat; but still he saw no sign of preparation, either by furling the sail, or at least, by lowering the *sprit*. Perhaps their anxiety to reach the Island made them heedless of their danger; but it was a fatal temerity. The cloud passed, the sun shone out, and the sky became bright again, but the boat was no where to be seen. She had capsized, and every soul on board perished. This was a heavy stroke to R —. In one instant his brother and companions were all hurried to another world, his present prospects blasted, and himself alone on an Island, with but a faint hope of being rescued, before his small remaining stock of provisions should be entirely exhausted.

But his was not the spirit to be subdued by misfortune. His life had been attended with too many adventures and severe trials, to give way to despair: therefore, he prepared a flag, established a signal post, and waited patiently the result of time; but day passed after day, and still no sail appeared within the limits of his view, to break the monotony of the scene, or to cheer his mind.

The contrast of the varied and active scenes of his former life, with that of his present situation, was indeed great; and he began to grow as weary of idleness, as he was of solitude.

He thought of constructing a raft, and by converting the tent into a sail, hoped, by taking advantage of a smooth sea, to reach the coast of Chili in safety; but in the midst of his preparations for the execution of this plan, he was joyfully interrupted by the appearance of a vessel in the offing, whose course seemed to be directly towards the Island. With all sail set to a fine breeze she approached rapidly, and in a short time took in her studding sails, and rounded to, with the fore-top-sail aback, within a mile of the beach. A boat was lowered, which soon after put off, with four oarsmen and one at the helm, and pulled in for the landing near which the tent was pitched. As they came near, Capt. R — made signs to them where to land, to avoid the heaviest of the surf, and then went to the spot to receive and welcome them. The boat, guided by his direction, steered close to the point of rocks, which breaks off the surf, and forms a partial shelter under its lee, and in a few moments reached the shore in safety. The crew jumped out, two on each side, and held the boat upright, while he who had been steering, stepped forward and sprang out on the beach. R — looked at him intently for a moment, and the stranger, after a quick glance of his keen eye, exclaimed with a kind of savage delight, "bien encuentrada mi amigo," and then turning to his men, ordered them to seize Capt. R —, bind him hand and foot, and place him in the boat.

The reader may wonder, who among Capt. R —'s former *friends* he had met with so accidentally, and who seemed to greet him so *cordially*, and his surprise will not be lessened on finding that he was no other than Martinillo the pirate, whom he had left on the beach at the mouth of the Maule, believing him dead; and he certainly had good reason for so believing; for it is difficult to imagine that any human being could suffer all he had undergone, and continue to live. The meeting here was entirely accidental, as the pirate knew nothing of Capt. R —'s being on the Island, and had no other object in view, than to procure a full supply of water, and then continue his cruise. On his return to the vessel, he ordered his prisoner to be put in double irons, and a sentinel posted to keep constant guard over him.

Capt. R — now found himself on board of a sharp built brigantine of about two hundred tons, a perfect model, taunt rigged, and bearing every appearance of being a very fast sailer. Her armament consisted of ten eighteen pound carronades, and two long eighteens—bow-chasers, which worked on long slides extending aft as far as the foremast, where the guns were kept secured when not required for action. Her crew was composed of a medley of all nations, about 110 in number, and her commander, the celebrated Martinillo, with whom the reader is already acquainted. After completing his supply of water, he

made all sail upon his brigantine, and steered to the northward during the night. In the morning after breakfast, he ordered his prisoner to be brought on deck, and without further ceremony, had him placed in one of the stern ports, his arms lashed to the ring bolts on each side of it, and a file of marines, with loaded muskets, drawn up in front of him. The pirate then advanced towards the port, and with a fiend-like expression of countenance, at the same time removing with his hand his dark matted hair from his scarred forehead, said to R —, "look at the work of one of your villains, and by your order. I now intend to serve you as you did my unfortunate companions, whom you captured at Maule"—then calling to his marines with an infuriate voice, "make ready—take aim"—he paused a moment, as if to enjoy the dreadful suspense of his victim, but seemed vexed to find, that so far from blenching in the least, he remained firm and composed, with his eye resolutely bent on the muskets, which in the next moment might deal instant death. The pirate hesitated—then ordered the marines to put up their arms. Again turning to R— he said, "I allow you twenty-four hours longer to live, but to-morrow, at this hour, you die." The sergeant was ordered to replace the prisoner's irons, and he was again consigned to the charge of a sentinel. The same scene was repeated several mornings in succession, but still Martinillo was unwilling to swallow hastily so sweet a morsel of revenge, and by this daily procrastination, seemed determined to practice the very refinement of cruelty, before finally wreaking his unhallowed vengeance.

Many, under these trying and hopeless circumstances, would have courted death as a relief from suffering; but such was the firm and unconquerable spirit of R—, that although death presented no terrors to his mind, he did not shrink from life, because it had become a burthen. On the morning of the fifth day, just as the prisoner was to be brought on deck again, a distant sail was discovered from the mast head, which caused a simultaneous shout of joy fore and aft; for by them, every vessel was deemed as lawful prize, which might not prove to be of superior force. For the present, all thoughts of the execution were absorbed in the interest of the chase—every yard of canvass was immediately spread upon the brigantine, and her course changed, so as to head directly for the strange sail. A ray of hope now shot across the mind of R—. The vessel in sight might be a Chilian cruiser, or perhaps one of the British or American squadrons; but this cheering thought was again clouded by the reflection, that for one man-of-war, there were at least one hundred merchant vessels on the coast, and therefore how much greater the probability that the unsuspecting stranger would fall a prey to the pirate.

The two vessels approached each other, and Martinillo, by

means of his spy-glass, soon ascertained that the stranger was a schooner, on the larboard tack, standing to the S.W. close on a wind. The pirate continued his course to the N.E. directly for her, and it was not long before they were near enough to each other, for the mutual discovery that both were armed. The schooner displayed the Chilian Government flag and pennant, brailed up her foresail, hauled down the flying-jib, and backed her fore-topsail.

The pirate hoisted the Spanish royal ensign, shortened sail, and kept his luff a little so as to preserve the weather-gage.—His decks were now cleared for action, and as soon as he gained the weather beam of the schooner, he bore up, intending to fire his two bow-chasers, and then luff to, and continue the action with his broadside guns; but just as the brigantine had got head-on, the schooner fired a raking shot from a long pivot gun, which struck the fore-yard, and carried it away in the slings. This threw the pirate's vessel into some confusion, but he quickly returned the fire with his bow-chasers, and then luffing to, continued the action with great spirit and effect. The schooner kept up a constant fire on her assailant, which did considerable damage; but the commander, finding his force far inferior to that of the pirate, and his vessel suffering severely, thought it full time to make sail, and effect his escape; which, from the crippled state of the brigantine, was no difficult matter to accomplish. Martinillo was sorely vexed at seeing his expected prize thus easily elude his grasp; but he at once commenced repairing the damages, and putting his vessel in a state to continue her cruise. On looking among the killed and wounded, however, he found he had met with one loss greater than all the others. His first lieutenant, the only navigator on board, had received a mortal wound, and was at that moment expiring in the arms of one of the sailors. This was a source of more regret than any thing that had befallen him; but an expedient occurring to his mind, he resolved to try it at once. He ordered his prisoner to be brought on deck, and after explaining to him the situation in which his vessel was left by the death of his first lieutenant, concluded by saying briefly, "I have now trifled with you long enough—your services are important to me as navigator to my vessel, and I offer you the vacancy which has occurred by my lieutenant's death. If you accept, you shall enjoy all the privileges arising from the station. If you decline, say your prayers at once, or the musket balls of my marines may interrupt you in them." Capt. R— very coolly replied, that he had no objection to accept his offer on condition that he should not be obliged to take an active part in his operations.

To this the pirate readily assented, and ordering the prisoner to be released from his irons, proclaimed him to the crew as

his first lieutenant. R — immediately commenced upon his new duties, and by his superior seamanship, and correctness in all his nautical calculations, he soon gained the confidence of Martinillo, who consulted him on all subjects relating to the vessel. At times, he was even disposed to be facetious, and apparently friendly; and one day that he was in a better humour than usual, he related to R — the history of his adventures from the time he was left, supposed dead, on the beach at Maule, to their unexpected meeting at Mocha. "After your return to the ship," said he, "I managed with great pain and difficulty, to crawl to a hut close by the beach, the habitation of a fisherman. I there found an old woman, who seemed almost terrified to death at my bloody and mangled appearance;" here a slight shade darkened his rough features for a moment, but it passed, and he resumed his narrative: "but as soon as I made her acquainted with my distress, compassion succeeded to fear, and she immediately set about dressing my wounds, and preparing every comfort for me which her cabin afforded. The balls which passed through my body, proved not to have made dangerous wounds; and the butt of your sergeant's musket, no thanks to his good intentions, did not fracture my skull; therefore, with the aid of an excellent constitution, and my kind old friend's unwearied attention, at the end of a month I was able to walk about without inconvenience; and in a few days more, set off on foot for Valparaiso, where I arrived as a *shipwrecked sailor*, without exciting any suspicion of my real character. I was not long in Valparaiso before I took a fancy to this vessel, and shipped on board of her as a seaman. We soon after sailed for Guayaquil; where, after a very short passage, we delivered our cargo. We were detained some time before we could get a return cargo; and several of the crew having deserted, the captain appointed me boatswain, and directed me to procure some good seamen in their places. This I did, taking good care to have an understanding with them first. At length we received a freight, and sailed again for Valparaiso; but the moment we were far enough from the land to escape observation, myself and comrades rose upon the officers, put them into one of the boats, turned them adrift, and wished them a pleasant voyage. This being done, we made all sail, and proceeded directly to the island of Chiloé, where I obtained authority from Governor Quintanilla, to arm the brigantine, and cruise as a Spanish privateer.

The delay, however, of fitting the armament, and of procuring the necessary number of men for a full crew, was very tedious; but being at length prepared, in compliment to the Governor, I called the brigantine by his name, fired a salute, and sailed on my cruise; and on my way along the coast, touched at the island of Mocha, to pick up a *spare first lieutenant*."

Here his naturally fierce and repulsive expression gave way to a momentary smile, as he tapped his lieutenant familiarly on the shoulder; but R — could never so far overcome his repugnance to the wretch, as to encourage the least familiarity; and, having heard his story to the end, soon found some good excuse, in the duties of the vessel, to withdraw from his *facetious* companion.

To follow the pirate through the various incidents of his lawless career, would far exceed the limits of this narrative; nor was it my original intention to become his historian, further than the events of his life were connected with those of Capt. R —. He continued his cruise along the coasts of Chili and Peru, making several valuable prizes; and on his arrival at Quilca, took possession of an American brig, called the Frederick.

As Quilca is the nearest landing to the city of Arequippa, and the point where all trading vessels land their cargoes for Upper Peru, he determined to cruise off the port. He knew that the authorities at Quilca had not the power to interrupt him, even if they had the inclination; but after a few valuable presents to the Governor, and an invitation to visit the brigantine, which was accepted, there appeared to exist a perfect understanding between them, "par nobile fratrum."

A few days after the capture of the Frederick, the English brig Swallow stood into the roadstead; and not suspecting the character of the brigantine, fell an easy prey to her. Martinillo sent his first lieutenant on board the prize, to take temporary charge, and conduct her to a safe anchorage. While standing in for this purpose, the pirate's attention was arrested by another sail which had just appeared off Point Ornillos. He hove to, and awaited her approach; but it was not long before he discovered the new comer to be a ship of the line; and taking advantage of a breeze just springing up from the northward, which brought him directly to windward, he made all sail, and stood off shore, leaving, with much reluctance, his first lieutenant behind.

The parting regrets, however, were very far from being mutual; and R —, overjoyed at the prospect of once more gaining his liberty, ran the Swallow into the cove of Quilca, in order to deceive the prize crew into the belief that he was trying to avoid being recaptured. On letting go the anchor, in the narrowest part of the cove, he purposely left the cable unbitted, and before the whole range had run out, the brig drifted on the rocks, and stove in her quarter. Night was just closing in, and R — availing himself of the confusion caused by the *accident*, stole quietly into the small boat, and sculled on shore, leaving the crew to the exercise of their own ingenuity in getting the brig off. In the morning, as soon as it was light, he clamber-

ed to the top of the high bluff of Quilca, which overlooks the roadstead, in hopes to find that the strange ship of war had reached the anchorage; but not a vessel was any where to be seen. This was a sad disappointment, and happy as he had just deemed himself at having escaped one danger, he now saw others threatening him on all sides. If he returned to the brig, he was in danger of being held a prisoner by his own prize crew, with the probability of being again delivered up to the pirate; and if it became known to the authorities on shore that he was an officer in the Chilian service, he would at once be seized as a prisoner of war, and perhaps spend his captivity in one of the mines of Peru; he therefore determined to remain concealed for the present, and trust to the same fickle goddess who had already played such a capricious game with him.

In this instance, however, she proved friendly. The ship, after an unsuccessful chase after the pirate, returned the next day, and sent her boat on shore R—, with a light heart, immediately repaired to the landing, and placing himself under the protection of the officer of the boat, was taken off, and kindly received on board, by the Commodore and officers of the U. S. ship Franklin.

A SHORT HISTORY OF THE CONTINENTAL FRIGATE ALLIANCE.

The following sketch has been communicated by an officer of the Navy who was personally intimate with Commodore Barry, and who has had other opportunities to become acquainted with the facts narrated.

The Continental frigate *Alliance* was built at Salisbury, on the river Merrimack, in Massachusetts.

The alliance with France, in 1778, induced our government to give the frigate the name she bore.

When the Trumbull frigate was captured, in 1781, the Alliance and Dean frigates composed our whole naval force of that class of ships.

The Alliance was commanded by many of the most distinguished officers of the Continental Navy—Barry, Jones, Nicholson and others; Commodore Dale served in her, as first lieutenant under Jones.

The history of this ship furnishes many pleasant anecdotes illustrative of great gallantry, and good humour; many of them occurring at periods of time when it would be supposed that the minds of responsible characters were naturally otherwise engaged.

The frigate Alliance, while convoying the sloop of war—— commanded by Captain Green, from Havana, having on board the money that founded the Bank of North America, was chased by a seventy four, and a large class sloop of war; the seventy four and our sloop sailed nearly the same; but the English sloop outsailed ours, and no doubt, would have come up with her, and in all probability, have so injured her masts and sails, as to allow the seventy four to come up, when she would, of course, have been taken: on each of those attempts to close with our sloop, Commodore Barry, who took his station on the weather quarter of our sloop, bore down on the English sloop and engaged her. The Alliance being of superior force, the English sloop was compelled to sheer off, and thus the money was preserved, which contributed much to the happy termination of our war with England.

In one of the encounters of the Alliance frigate and British sloop, a shot entered the corner of the Alliance's counter, and made its way into a locker, where all the china belonging to the Captain, was kept; an African servant of the Commodore's, a great favourite, ran up to the quarter deck and called out "Massa, dat dam Ingresse-man broke all e chana!" "You rascal," said the Commodore, "why did you not stop the ball?" Sha, massa; cannon ball muss hab a room."

At the close of the war the Alliance was sold by the government, and purchased by Robert Morris; and Captain Green, with Commodore Dale in the capacity of chief mate, made the first voyage from Philadelphia to China, that ever was attempted out of that port; and little did they suppose, at the time they started, that a small craft from Salem, was on her way before them; but such was the fact;—for, on their arrival in the Indian ocean, they fell in with a small Yankee schooner, and on hailing her, were answered "from Salem." Captain Green enquired what charts they had; the answer was "none, for there were none to be had, but we have Gutherie's grammar." This passage was performed out of season, and it is believed to have been the first ever made outside of New Holland, by an American.

Commodore Barry, while commanding the Alliance, was chased by the Chatham, sixty four, off from the entrance of the Delaware Bay; and it has been said, that, on that occasion, the ship sailed fifteen knots, and run down the Speedwell, British sloop of war, the Commander of which attempted to prevent the escape of the Alliance.

The Alliance, after all her wonderful escapes from the enemy, and long and perilous voyages, died a natural death in the port of Philadelphia, and laid her bones on Pellet's Island, opposite that city.

In the year 1802, an officer attached to Commodore Dale's

squadron, met with Captain Vashon, of the British Navy, at Gibraltar, who then commanded the Dreadnaught, ninety eight; and was informed by him, that he commanded the English sloop of war, before spoken of.—Captain Vashon made the most respectful enquiries after Commodore Barry, and stated the facts, as they had been frequently related before, by the Commodore himself; and in the most magnanimous terms accorded to that gallant officer, a full and generous portion of his approbation, for the masterly manœuvring of the Alliance, on that occasion. Captain Vashon stood high in the British Navy, as a distinguished seaman, and observed, that the Commander of the seventy four, who was then an Admiral, spoke often to him, on the subject of their pursuit of the frigate Alliance; always giving her Commander great credit for his conduct. Commodore Barry, on this, as on all other occasions, evinced his love of justice, and spoke of Captain Vashon's conduct, bravery and ability, in terms of the highest commendation.

NAVAL INTELLIGENCE.

Commodore W. BAINBRIDGE has been relieved from the command of the Navy Yard, at Charlestown, Mass. The friends of this gallant officer will be grieved to learn that this release from the duties of an arduous station is at his own request, made in consequence of the feeble state of his health. He arrived in Philadelphia on the 16th April, accompanied by medical friends. His complaint is said to be dropsy.

Commodore JESSE D. ELLIOTT has been appointed to succeed Com. Bainbridge.

The U. S. ship *Fairfield*, Master Commandant C. S. McCauley, now at Norfolk, is under sailing orders to proceed to New York, and from thence shortly for her destination in the Pacific squadron, to relieve the Falmouth.

The following is a list of her officers:—

CHARLES S. McCAULEY, *Commander.*

James P. Wilson, 1st *Lieutenant.*	*Midshipmen.*
John A. Carr, 2d do	J. P. B. Adams,
Samuel Lockwood, 3d do	A. R. Rose,
N. C. Lawrence, 4th do	Charles Burdett,
Wm. F. Patten, *Surgeon.*	W. Gwathmey,
M. G .DeLaney, *Assist. do.*	Wm. P. McArthur,
John A. Bates, *Purser.*	James D. Morrison,
Frederick Chatard, *Acting Master.*	Henry Waddell,
Edward L. Handy, } *Passed*	V. L. Williamson,
Wm. C. Chaplin, } *Midshipmen.*	Wm. P. Gamble,
Lewis Parker, *Gunner.*	Wm. H. Wallace,
Wm. Hatch, *Carpenter.*	Geo. W. Dotey,
John V. Hall, *Sail Maker.*	Daniel D. Henrie.

Passengers in the Fairfield to join the schooner Dolphin;

R. Voorhees, *Lieut. Com'g.*	H. S. Rennolds, *Assist. Surgeon.*
Henry Eagle, *Lieutenant.*	Joseph Lanman, *Acting Master.*
John W. Turk, *do*	Joseph Sperry, *Midshipman.*

The U. S. ship *Natchez*, Master Commandant J. P. Zantzinger, will sail early in the present month from Norfolk for the Brazil station.

The following is a list of her officers:—

JOHN P. ZANTZINGER, *Commander.*

David G. Farragut,	1st	*Lieutenant.*	*Midshipmen.*
Wm. W. M'Kean,	2d	do	John Banister,
Alex. B. Pinkham,	3d	do	William S. Drayton,
John Manning,	th4	do	Edmund Jenkins,
Samuel Moseley, *Surgeon.*			Wm. D. Hurst,
Geo. B. M'Knight, *Assist. Surgeon.*			William T. Smith,
Samuel P. Todd, *Purser.*			Francis E. Baker,
Charles H. Duryee, *Acting Master.*			Addison R. Talliaferro,
W. C. Cutts, A. C. Maury,		*Passed Midshipmen.*	Wm. R. Gardner,
			Thos. O. Glasscock,
Joshua W. Fry, *Captain's Clerk.*			John W. Bryce,
James Banks, *Boatswain.*			Levin Handy,
Francis Russ, *Carpenter.*			Richard Forrest,
Daniel Kelly, *Gunner.*			Thomas T. Hunter.
Thomas Dawes, *Purser's Steward.*			

Passenger in the Natchez—Purser W. P. Zantzinger, to join the schr. Enterprize.

The U. S. ship *Vincennes* is preparing for sea at Portsmouth, N. H. and will be ready in all the present month; her destination is the Pacific.

The following officers have been ordered to join her.

WM. D. SALTER, *Commander.*

Charles H. Bell,	1st	*Lieutenant.*	*Midshipmen.*
Chas. H. Jackson,	2d	do	John J. Almy,
Theodorus Bailey,	3d	do	John G. Anthony,
James T. Homans,	4th	do	John B. Dale,
Edm'd. M. Russell,	5th	do	Geo. W. Harrison,
A. B. Cooke, *Fleet Surgeon.*			Stephen Decatur,
J. F. Sickels, *Assist. Surgeon.*			Wm. A. Jones,
E. N. Cox, *Purser.*			John H. Sherburne,
John S. Missroon, *Acting Master.*			O. H. Perry,
Robert Handy, Sam'l. Swartwout,		*Passed Midshipmen.*	A. G. Clary,
			Washington Bartlett,
John Morris, *Boatswain.*			Wm. A. Parker,
Charles Cobb, *Gunner.*			Strong B. Thompson,
John Green, *Carpenter.*			Hunn Gansevoort,
Henry Bacon, *Sail Maker.*			L. B. Avery.

Schooner *Grampus*, sailed from Charleston, S. C. for the West Indies, on the 6th April. The following is a list of her officers:—

JOSEPH SMOOT, *Commander.*

Arthur Lewis, *Lieutenant.*		*Midshipmen.*
E. T. Doughty, *Acting Master.*		H. S. Stellwagen,
William M. Wood, *Acting Surgeon.*		Charles Steedman,
J. M. Gardner, A. H. Kilty,	*Passed Midshipmen.*	Roger Perry,
		George W. Chapman,
John Oliver, *Gunner.*		Wm. L. Parkinson.
John D. Benthall, *Boatswain.*		Wm. McKenny, *Captain's Clerk.*
John Duffell, *Carpenter.*		
N. D. Seaver, *Sail Maker.*		

Passenger—Lieut. L. B. Newell, to re-join the U. S. ship St. Louis.

The U. S. ship of the Line *Delaware* will be taken into the Dry Dock at Norfolk, as soon as it is ready for her reception, preparatory to her sailing for the Mediterranean.

MEDITERRANEAN.—Frigates *United States*, *Brandywine*, and *Constellation*, and sloop *John Adams*, were at Port Mahon on the 6th January. The *U. States*, after leaving Naples on the 17th October, visited Messina, Syracuse, Malta, Tripoli, and Tunis.

WEST INDIES.–Sloop *Vandalia*, Capt. Budd, bearing the broad pennant of Com. J. D. HENLEY, arrived at Pensacola on the 13th March, and was there on the 5th April.

Sloop *St. Louis*, Captain Newton, arrived at Port au Prince, 8th March, sailed on the 13th, arrived at St. Jago 20th March, and at Pensacola 2d April—all well.

Schooner *Shark*, Lieut. Com'g. Boerum, from St. Thomas, was at St. Croix, 3d March; touched at St. Pierre's (Mart.) 26th March, and on the 5th April daily expected at Pensacola.

Schooner *Porpoise*, Lieut. Com'g. McIntosh, arrived at Pensacola 13th March, and was there on the 5th April.

BRAZIL.—Sloop *Warren*, Captain Cooper, at Rio Janeiro 19th February —All well.

Sloop *Peacock*, Capt. Geissinger, was at Canton 1st Dec. 1832.—All well; was at Lintin (China) on the 20th December—to sail next day for Turon Bay, (Cochin China) and thence to Siam.

Schooner *Boxer*, Lieut. Com'g. Shields, bound to the East Indies, was spoken 5th December 1832, by a whale ship, arrived at New Bedford, in lat. 37° 54′ S. lon. 2° 25′ E. All well.—Expected to arrive at Bencoolen in about 60 days.

PACIFIC —Frigate *Potomac*, Com. Downes, arrived at Callao on the 15th Dec. in 13 days from Valparaiso, and was still at the former port on the 6th January.

Sloop *Falmouth*, Captain Gregory, arrived at Callao on the 1st Dec. and at Puna (Guayaquil) on the 16th Jan. to sail immediately for Valparaiso.

Schooner *Dolphin*, Lieut. Com'g. Long, was at Calloa on the 22d Dec. —at Guayaquil on the 10th January, and at Panama on the 5th February; sailed on the 16th Feb. for Lima and Valparaiso.

PROMOTIONS.

The following promotions in the Navy have been made since the publication of the Register.

Master Commandant Lawrence Kearny, to be a Captain, to take rank from 20th December, 1832.

Isaac Mayo,	} Lieuts. to be	Masters	Commandant	20 Dec. 1832.
Wm. K. Latimer,	} do	do	do	2 March, 1833.
Peter Turner,	} Passed Midshipmen to be	Lieutenants, to take		
John T. Jenkins,	} do	do	rank from	20 Dec. 1832.
John A. Davis,	do	do		27 Feb. 1833.
Henry K. Thatcher,	do	do		28 " "

At a Board of Surgeons of the Navy, convened in Washington, 28 Jan. 1833, of which Dr. L. Osborne was President, Assistant Surgeons Samuel W. Ruff and Geo. W. Palmer were examined and found qualified for promotion.

Six gentlemen were passed as qualified for the appointment of Assistant Surgeon, five of whom have since been commissioned, viz:—J. Frederick Sickels, Napoleon C. Barrabino, M. G. DeLaney, W. F. McClenahan, H. S. Rennolds.

RESIGNATIONS.

Chaplain—Hervey H. Hays. *Midshipmen*—David B. Morgan, David M. Stokes, Cranstoun Laurie, John L. Spencer.

DISMISSAL.

Lieutenant Robert B. Randolph, of the Navy, 19th April.

ORDER, *No.* 32.

HEAD QUARTERS OF THE ARMY,
ADJUTANT GENERAL'S OFFICE,
Washington, 18th April, 1833.

The Secretary of War has given the following names to the Forts to be constructed and situated on the points and places here below mentioned:

To the work on Grand Terre, Louisiana,	*Fort Livingston.*
To the work on Mobile Point, Alabama,	*Fort Morgan.*
To the work on St. Rosa Island, Florida,	*Fort Pickens.*
To the work on Cockspur Island, Georgia,	*Fort Pulaski.*
To the new work now constructing in the Harbour of Charleston, South Carolina,	*Fort Sumter.*
To the work on Oak Island, North Carolina,	*Fort Caswell.*
To the work on the Peapatch, Delaware River,	*Fort Delaware.*
To the work on Throg's Neck, New York,	*Fort Schuyler.*
To the work on St. George's Island, Boston Harbour,	*Fort Warren.*

BY ORDER OF MAJOR GENERAL MACOMB,

R. JONES,
Adjutant General.

NOTICES.

To SUBSCRIBERS.—The Military and Naval Magazine has now reached its third number, and the publishers feel grateful for the warm interest manifested by various individuals for the success of the work. Additional names are coming in slowly; but enough have not yet been obtained to ensure the permanency of the publication. Twice the number of names now on the list would about defray the expenses, and still leave the publishers without profit for their labor and capital. An appeal is therefore made to every subscriber, to use his exertions to obtain at least one additional subscriber, if he cannot do more. By this means, the continuance of the work would not only be secured, but the publishers would feel encouraged to prosecute their labors with spirit, satisfied that they should lose nothing by the undertaking.

It may be, and doubtless has been, said by some, that they will patronize the Magazine, if they find it hereafter worthy of patronage. But with deference be it observed, this is not the proper course to pursue, nor the true spirit with which to regard the work. Let all such as are inclined to patronize the Magazine, contribute their $5 for the first year, and, if they will, let them consider the money as thrown away—that the work is good for nothing—yet, satisfied that something of the kind is wanted, for the sake of making the experiment, they will consent to lose $5. If, at the close of the year, they find their hopes and expectations disappointed, the publishers ask no further aid, and will be content that the work shall stand or fall by its own merits.

Undertaken almost exclusively for the benefit of the officers of the Army and Navy, and intended to supply a desideratum often felt and long wanted, their proverbial liberality, it is hoped, will not suffer the Magazine to languish, for want of the desired patronage.

None but such as have been abroad, can realize the feeling with which information from their far-distant and dearly-loved home is welcomed. How many officers of the Army are there, who are stationed in some remote corner, beyond the endearments of kindred and domestic ties; and what officer of the Navy is there, who is not liable, at a moment's warning, to be ordered away on a three years' cruise? To every one so situated, a publication like the Military and Naval Magazine, must possess a charm, and a value, which will render its appearance thrice welcome.

To every officer of the Army and Navy, then, the appeal is made; and may it not be made in vain.

☞ Some few subscribers have paid their subscription money in advance, to an Agent, under the expectation that their numbers would be forwarded by mail free of postage. A reference to the prospectus, however, will shew, that to entitle subscribers to this privilege, the money must be remitted *to the publishers*, and should likewise be free of postage. The profits of the Magazine would, in no case, justify the payment of postage, and the allowance of a commission to Agents. One is considered about equivalent to the other; but both would cause too great a drawback upon the receipts.

To CORRESPONDENTS.—It is perhaps unnecessary to state, that the Publishers look principally to the officers of the Army and Navy, for contributions for the original department of the Magazine. That there is abundant talent and materials in the two services to sustain, with credit, a work of this description, is generally and freely admitted. To draw those materials from their otherwise unavailable obscurity, is one of the objects of the Magazine; and to hand down to posterity, in a shape fit for preservation, or for the use of the future historian, deeds of noble daring, instances of devoted patriotism, new inventions and discoveries, narratives of adventures on sea and land;—to note the improvements of the age, and to give a succinct view of the movements of the Army and Navy, will form the leading features in the character of the work.

The habit of forwarding communications anonymously, is attended with objections, not the least of which is the danger of perverting the writer's meaning, especially if his manuscript be not very legible. The confidence which should ever subsist between a writer and his publisher, ought to be a sufficient safeguard to the former to disclose his name privately; and should that confidence ever be betrayed, the publisher forfeits all claim to further favors. If it be urged, that the Editor of the Magazine is not known, as his name has not been formally announced, and that therefore persons who would be disposed to write, are unwilling that their productions should be submitted to the scrutiny of strange hands, it may be said in reply, that the Publishers hold themselves accountable for the impartial and honorable disposal of all articles offered for publication; it is their wish to inspire such

a degree of confidence in contributors, as that they will not hesitate to communicate their names privately, to be held sacred when required.

Whenever a sufficient quantity of copy shall have been prepared in advance, the original matter will be inserted first in order, but having at present to depend mostly on selections, it would cause too much delay to wait in expectance of communications. The work must go on, and selected pieces be put in hand, if original ones are not ready. Articles intended for a forthcoming number, should be received by the 10th of the month, or sooner, if possible.

Whatever facilities the Public Departments can afford, have been kindly promised; and much valuable information may, and will, be obtained and published, as time to select and arrange the materials can be found; besides this, whatever relates to the current events of the day, will be communicated in an authentic form.

Information, touching the construction of forts, barracks, arsenals, navy yards, the building and repairing of vessels, warehouses, docks, &c. and a thousand other minutiæ, would be acceptable.

☞ Two communications have been received, one signed "A Subscriber," the other "W," both relative to the organization of the Ordnance Corps and the Regiment of Dragoons; their insertion is declined on the ground that the language is not considered respectful towards the constituted authorities of the country. We by no means intend to close our pages against complaints, or the reformation of abuses, where they exist: but our advice to all is—*be temperate.*

To AGENTS.—Agents are requested to transmit to the Publishers the names of all the subscribers they may have obtained; designating those who wish to receive their numbers by mail, and those who prefer receiving them from an Agent.

Agents will also confer a favor by informing the Publishers whether any copies have been returned to them by gentlemen, to whom the first number was sent as a specimen; and, if so, by whom.

From the notices which have been taken of the MILITARY AND NAVAL MAGAZINE, the following, from the "*Western Monthly Magazine,*" is selected, because it contains judicious advice, which may be adopted with benefit both by the Publishers and their patrons.

MILITARY AND NAVAL MAGAZINE OF THE UNITED STATES.—Volume I. No. 1. March, 1833. Washington: *Thompson & Homans.*—This is the title of a new Monthly, just established at Washington City. The increase of this species of periodicals, has lately been rapid, and we have seen none excelling this in *plan*. That such a work can be well supported, we have no doubt: but in order to insure patronage, it should be exclusively, as the title imports, a magazine of the United States. Such is *not* the character of the publication before us, though fair promises are made that such it shall be. When we call to mind the inexhaustible resources for such a work in the past history of our country, and in the present movements of

her army and navy, we are convinced that abundant materials exist without drawing upon foreign works. This number borrows largely in this way, which we regret to see. There are now living, many of the officers and soldiers who served in the late war, who could relate their experience; thus affording a mass for the future historian, which, in the want of some depository, would go down with them to the grave. So with the naval officers and sailors, who served in the same war. Our troops are stationed on the frontiers of the country, in parts yet comparatively little known, and are in constant association with a race, of whose peculiar character, institutions, legends, and habits, much may yet be made public, and may be handed down to remote ages, when that race shall have become extinct.—Surely such opportunities should not be neglected. Our men of war, too, float on every sea. Among these officers are many men of talents and learning, from whom could be obtained, contributions eminently interesting. How much of the characteristics of the inhabitants of the Mediterranean shores yet remains to be brought to light; and how little do we really know of the state of society in South America; to say nothing of our almost total ignorance of the tribes who inhabit the islands of the Pacific. Such, connected with the lighter kinds of description of scenes in the services, and statistical intelligence, we think, are the legitimate objects of a 'Military and Naval Magazine of the United States,' and we hope they will be embraced by this publication.

The writer of this notice has conceived the true scope and design of such a work as the Military and Naval Magazine; and, such as, in the course of time, the Publishers flatter themselves they will be enabled to make it, with the favor and aid of the officers in the two services. But, as yet, these officers are not prepared to offer their contributions of material; the undertaking is a new and untried one, and its commencement was attended with very many disadvantages, some of which are enumerated in the preface to the first number.

But, even supposing that sufficient *original* matter could be obtained, to fill the pages of the Magazine, it may well be questioned whether it would be advisable to discard every thing of foreign fabric. There are many excellent articles which may be selected from the European, and particularly the English periodicals; and until time be afforded to procure those of domestic origin, we must depend in a great measure on our transatlantic brethren. Were we to fail to benefit by the experience of other nations, in affairs of government, or refuse to adopt their improvements in agriculture, commerce, manufactures, or the fine arts, we should lose many of the blessings and comforts which we now enjoy.

GENERAL INTELLIGENCE.

METALLIC SHEATHING.—Baron Wetterstedt, the Swedish chemist, has lately introduced an alloy of lead, antimony, and quicksilver, as a substitute for copper sheathings to vessels. The combination of these three metals prevents the alloy from oxidizing, at the same time that it secures that cohesion, tenacity, and elasticity to the composition, which the copper itself possesses but to a very limited extent. This new sheathing is said also to resist effectually the corrosive qualities of sea-water, to retain at all times a clear and polished surface, and to be obnoxious to every animal or vegetable substance. The price at which Wetterstedt supplies his article is very reasonable, and we have been assured that it is extremely durable, and acquires increased powers of resistance the longer it remains in contact with sea-water.

DEATH—In 1832, made great havoc in the French navy. Sixty-five officers died in the course of the year. Among them were three Vice Admirals, two Rear Admirals, twelve Captains of men-of-war, and nine Captains of frigates, either in active service, or on the retired list. The Vice Admirals who died were Messrs. Leissegues, Bonvet, and Rosily-Mesros; the Rear Admirals, Messrs. Girardias and Burgues du Missiessy.

BRITISH NAVY.—The number of vessels composing the British Navy amounts to 574. Fourteen carry 120 guns, five 110, three 108, twelve 84, nine 78, six 76, sixty-two 74, seven 52, fifteen 50, sixty-two 46, and twenty 42. The remainder carry from 36 to 2 guns each. In this number are included twenty government steam vessels. This immense fleet employs 20,000 sailors & 12,000 royal marines.

NAVAL SINECURE OFFICES.–The following is the return made to the House of Commons on this subject: Sir E. Thornborough, Vice Admiral of England, has £469 5s. 8d. per annum, (49½ yrs. in active service;) Sir G. Martin, Rear Admiral of England, £370 4s. 3d. (33 years;) Lord de Saumarez, General of Marines, £1,728 15s. (47 years;) Sir W. Sidney Smith, Lieut. General of Marines, £1,383 (21 years;) Sir G. Cockburn, Major General of Marines, £1037 5s. (29 years;) four Colonels of Marines—Captain Skipsey, Captain the Hon. F. Irby, Capt. Sir Christopher Cole, and Captain the Hon. Duncan P. Bouverie, with each £690 9s. 2d. per annum. There are no offices executed by deputy in the navy.

MARRIAGES.

At New York, on the 11th April, by the Rev. Mr. Forbes, Lieut. JAMES H. WARD, U. S. Navy, of Hartford, Conn. to Miss SARAH ANNE, daughter of SAMUEL WHITTEMORE, Esq.

At New York, on the 15th April, by the Rev. Dr. Wainwright, Lieut. JOSEPH RITNER, of U. S. Army, to MARY, eldest daughter of Mr. ALEXANDER KYLE, of West Point.

DEATHS.

In Portsmouth, Va. 21st of March, Doct. THOMAS V. WIESENTHAL, late a Surgeon in the U. S. Navy, aged 43 years.

In Washington, on the 1st of April, after an illness of five days, of Scarlet Fever, JULIA ANNA S. aged 3 years, and on the 20th of April, after an illness of twelve days, of same disease, MARY ELIZABETH, daughters of Capt. L. TWIGGS, of the Marine Corps.

At Middletown, Conn. early in April, MARY SELINA, daughter of Lieut. JOSIAH TATNALL, of U. S. Navy, aged 2 years.

In Norfolk, 4th of April, at the Navy Hospital, after a protracted illness of a pulmonary character, Lieut. JOSEPH M. NICHOLSON, of the U. S. Navy, a native of Maryland. Lieut. N. had been many years in the public service, and was favorably known as an officer faithful in the discharge of his duty.

In Boston, LEWIS DEBLOIS, Esq. formerly a Purser in the Navy.

On the 12th of April, on board the U. S. Frigate Java, at Norfolk, Va. Midshipman JOHN MIDDLETON, in the 22d year of his age; a native of Charleston, S. C.

At Charlestown, Mass. 14th of April, Sailing Master JOSEPH WILLISTON aged 52.

At Nashville, Tenn. Mid. WILLIAM PRYOR, murdered.